ABSTRACT OF

A Presidential Address

ON

ART AND MEDICINE.

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BY LEONARD MARK, M.D. DURH., L.R.C.P. LOND., M.R.C.S. ENG.

"In this work attempts will exceed performances it being composed by snatches of time, as medical vacations and the fruitless importunity of uroscopy would permit us. And therefore also perhaps it hath not found that regular and constant style, and those assured determinations which the subject sometimes requireth, and might be expected from others whose quiet doors and unmolested hours afford no such distractions."—Sir Thomas Browne's "Vulgar Errours."

GENTLEMEN,—It was early in the summer, when I was spending my holiday in Paris, that it came to my knowledge that I might perhaps have the honour of occupying this chair and that it would be my duty to choose some subject for an address which I hoped might interest you. To tell you the truth, I chose the subject at once. I had been spending several days looking at pictures in Paris; the weather being unusually wet had made me spend many more hours than I first intended in museums and galleries. The result was that my head was very full of pictures, and I felt just then that if I had to talk about anything it must be about pictures, all the more so because of the great impression which had been made on me just then by seeing a large number of them which contained subjects of medical interest. My attention had been arrested when I had come across pictures in which there was depicted some medical or surgical incident or in which appeared the representation of an infirmity, a deformity, or a wound, or in which death in its various aspects had a place. I had unconsciously been analysing many of them and considering whether they were correctly drawn, whether they gave a proper idea of what was intended. I wondered in many cases whether some were true copies from nature and from what had really been seen; in some instances whether the painting had been done from real wounds from a dead person, in others whether certain portraits of people, historically known to have suffered from any complaint, revealed it in their counterfeit presentment or not; also whether certain characteristics, depicted in other pictures, showing pronounced illness or abnormality, were painted thus purposely or unwittingly. I thought that here was a subject which was full of interest and I hoped that if I chose one full of interest to myself I might possibly make it so to my audience. As the idea of this subject developed I began to observe these particular pictures with increased attention and on my return to London I determined to see what our own galleries had to show in this line, my wish being to confine myself to the pictures we have in England. My first visit was to the National Gallery and, truth to say, after a first general look round I was a little disappointed and came away thinking there would not be very much to talk about after all.

Medicine may find a place in paintings for several reasons. I think the greatest reason of all is to excite a *sympathetic emotion*, for the subjects chosen for pictures are often scenes connected with sickness or death. Or some touching episode in a domestic or historical drama may be represented, in which one of the details is of a medical nature and must find a place to explain the rest. Or it may be brought in for *contrast*, as when a deformed or diseased person is depicted, so as to act as a contrast to another fine or well proportioned figure. This is very frequently seen in the old masters, as I shall show you further on, and the tradition has been kept up even in later days, a well-known example being that of "The Contrast," by Lord Leighton. Here deformity is brought in with the object of enhancing the beautiful. Leonardo da Vinci said that "contrast" was essential in a work of art. We might roughly divide the pictures of this class into two large groups. First, those of the old masters, dealing mostly with heroic, biblical and religious subjects, in which the plague and leprosy with their sores, the martyrdom of saints with their various wounds, death in its many aspects had to be represented. It is easy to understand the important place which such subjects found in art during the period of its revival in the Middle Ages, when we remember that it was one of the principal means of teaching the people the history of the Bible and of the saints before the days of printing. The second great group is that of modern pictures, and here the drama and romance seem to me to have inspired most of the subjects which come into the category, to which we may add scenes from history and scenes from everyday life, in which something medical is just as likely to find a place as some detail connected with architecture, navigation, hunting, sport, the naval and military sciences. For art is universal and calls to her aid every chapter in life and every science.

Whenever medicine is brought into art good taste demands that any morbid detail should be but an accessory and not be painted as the essential part, or in such a manner as to take away the attention from the main idea which the painter desires to express. The painter's knowledge of pathology can be but slight, and he should make use of it merely as a means to an end; it must not be his object. But we wish him to be correct and a medical man likes to see medical details in a picture carried out faithfully, just as a military man likes to see military details treated in a battle scene, or a sailor, the details in the rigging of a ship. I believe that no class of men criticise pictures more keenly than the last. We like to judge how far the artist has been sincere in his observation, but we should not expect him to produce any realistic displays which would jar upon our better feelings. The artist must often judiciously put some detail of his picture in the shade or merely give an indication of it. If it be true that the highest art is to hide art, it is often also true that it is high art to hide a morbid detail.

In this paper I wish to talk only about pictures and works of art which we have in England and the first pictures that I wish to bring to your notice are some of those by the Old Masters.

THE OLD MASTERS.

In the first rank amongst the great works of art in England we ought to place the cartoons of Raphael, now at the South Kensington Museum. The subject of one of them is St. Peter and St. John healing the lame man at the gate of

FIG. 1.

A detail from Raphael's cartoon, "St. Peter and the Lame Man." (South Kensington Museum.)

the Temple. The scene is a striking one, the moment chosen being the one just before the miracle. In the foreground in the centre of the picture is seated "the lame man from his mother's womb who was carried daily and laid at the gate of the Temple, which is called Beautiful, to beg for alms" (Fig. 1). Attention is at once drawn to his legs. They are

doubled up, the knees being flexed at an acute angle, especially the right one, which is raised so as to bring into view the right foot which is so extremely distorted that the plantar surface is looking upwards. The muscles are wasted and the large pendulous toes look livid. The toes are much distorted in the left foot, the big one being bent upwards at a right angle to the dorsum of the foot. Raphael probably chose for his model a beggar who had suffered from infantile paralysis. He has a low receding forehead, a low bridge to his nose, very brilliant eyes which are deeply sunken in their orbits, a large prominent jaw, and big ears. His general aspect suggests a man who had had rickets. When painting this cripple, Raphael very likely had two different models that he amalgamated. He may have done here what he did when painting a beautiful woman. He is known to have declared that a perfectly beautiful woman is so rarely met with that he was obliged to take the various features from different models to produce a perfect picture. Sir Charles Bell mentions in his book on "The Anatomy of Expression," that in visiting a church in Genoa, he found a beggar lying in his way, the precise figure of the lame man in the cartoon of Raphael. The lame man is staring at St. Peter with open mouth, his face expressing his astonishment at the notice which is being taken of him. St. Peter is standing in the middle holding up the cripple's hand. He has a commanding look and his position is full of dignity. With one hand he holds the cripple's wrist while he raises the other to render more impressive the words he uses: "Silver and gold have I none; but such as I have give I thee. In the Name of Jesus Christ of Nazareth, rise up and walk." St. John has also a prominent place in the picture, and helps with St. Peter to form a contrast to the cripple in the central group and the other cripple who is kneeling between the columns on the right. This one has a round prominent forehead and a low bridge to his nose. His thighs are conspicuously short and he has also suffered from rickets. His face is full of expectation and hope. Extra charm is given by the introduction of a mother and her child, one of Raphael's most beautiful creations. In this picture Raphael must have made a very exact copy of the deformity of his model but brings it in merely as an accessory. He has studiously thrown a veil over all the morbid part of the cripple's legs by means of a cast shadow. The lame man is carefully placed between the columns, so that the shadow of one of them crosses his feet and knees. It took me some time and trouble to make out the exact outline of the limbs owing to the painting, which is *in tempera*, having become darker after four centuries of exposure. In the sketch which I show you I have left out part of the shadows, so as to bring the legs and feet more prominently into view. One of the criticisms made against the picture is that these columns, owing to the way they are placed, cut up the subject and divide it into three groups. They are highly decorated and obviously not Jewish but a creation of Raphael's imagination. I believe it quite possible that they formed part of his design for hiding the hideous parts of his subject.

ST. ROCH AND ST. SEBASTIAN.

One of the greatest scourges mentioned in history was the plague, and very naturally the painters of the Middle Ages who were brought face to face with it found it a fruitful subject for their brushes. Anyone reading Boccaccio's vivid account of it will understand how greatly it must have influenced life in those times, and how the people must have sought for measures to avert it. Religion was appealed to for its protection, and art recorded its ravages. Just at the time of the great revival of art, and when the plague was creating the greatest havoc, two saints came prominently into notice and were constantly appealed to for protection. They were St. Roch and St. Sebastian, and to represent them in painting or statuary became a grand opportunity for artists; hence, the frequency with which we meet with pictures of them. They are often represented together as joint protectors against the plague. St. Roch is especially interesting to medical men, and might rank as one of the first of their patrons. He is at once recognised in pictures as a man in the prime of life, habited as a pilgrim, with a cockle shell in his hat, holding his staff in one hand, while with the other he lifts the corner of his cloak to show the plague spot on the upper part of his thigh, or points to it. His legend is comparatively modern and tolerably authentic. He was born at Montpelier, famous as the seat of one of the earliest schools of medicine. He was of noble parentage. When he came of age he disposed of his riches and started on a pilgrimage to Rome. In several cities on the way the plague was raging, and he stopped to minister to those who were stricken. He found that this was his true mission, and devoted himself to the sick in the hospitals at Rimini until at last he was himself attacked by it. Left to himself, he lay in the outskirts of the town expecting to die, but a little dog, who had followed him in all his journeyings, used to go into the town every day and return with a loaf of bread in his mouth, and thus kept him from starvation. An angel from heaven, says the legend, used to come and dress his wounds and minister to him in his solitude. He recovered from the plague and returned to his native town where he died on August 16th, 1327. The National Gallery contains several pictures in which St. Roch is figured, generally in groups with other saints, but the best one of all is a beautiful picture by Morando of "St. Roch and the Angel," a work which ought to be better known, being one of the finest examples of the subject (Fig. 2). The saint is represented

FIG. 2.

Morando. "St. Roch and the Angel." (National Gallery.)

as a young man with delicate features, and a refined and compassionate expression. His pale, somewhat dusky complexion, his long, thin hands, his brilliant but sunken eyes, his open mouth, all help to denote a sufferer from some severe illness. His clothing is drawn aside by his hand to lay bare the upper part of the right thigh, according to the tradition, and expose the plague spot. High up in the middle of the shadow of the cloak there is a thin ray of light, which is all that indicates the seat of the sore. But a mysterious sort of light emanates from the part, and illuminates the large fold of the red cloak and the fingers of the left hand with a glow which is more than can be accounted for by the light descending from the angel above. The usual attributes appear. The pilgrim's staff is planted in the background, and on it hangs the pilgrim's hat. In front is the little dog, his companion in his wanderings. The background consists of some oak leaves growing from short stout branches, and their sturdy appearance forms a great contrast to the delicate figure of St. Roch. The angel above him is blessing him with his right hand, while with his left he points to the distant horizon whither the pilgrim must wend his way, and where he is wanted for further deeds of self-sacrifice.

The other saint whom I wish to talk about as having occupied an important place in art is St. Sebastian. This martyr is always represented tied to a stake with his body

pierced with arrows. In our National Gallery I have counted eight pictures in which he finds a place and I have been much interested in studying the various ways in which the arrows have been depicted penetrating his flesh. Some of the methods adopted are purely conventional. In one of them six or seven arrows are drawn exactly alike and under each one is painted a group of five drops of blood, which one cannot help remarking look like a small bunch of currants hanging from the arrow. Apart from the medical question, some of these artists have shown their ignorance of the legend which says that the martyr recovered from his wounds without the held of any miraculous agency. Sebastian was a young nobleman commanding a company of the Pretorian Guard in the reign of Diocletian. He professed Christianity in secret until it came to the knowledge of the Emperor who ordered him to be tied to a stake and to be shot to death with arrows. He was left for dead, but was carried to the house of some friends who found that none of his wounds were mortal and who nursed him carefully until he recovered. He afterwards had the boldness to present himself before Diocletian, whose anger was roused and who this time ordered him to be dragged to the circus and to be beaten to death with clubs. In art his importance at once secured him a prominent place and an opportunity was furnished for artists to display the beauties of the human form. St. Sebastian gradually acquired in the art of the early ages of Christianity a place similar to that occupied in heathen art by Apollo, the father of Æsculapius. This divinity was represented with a bow and arrows and he had the power of sending sudden death and the plague with them to man for his punishment, but at the same time of delivering him if duly propitiated. Arrows were always symbolical of the plague and remain so to this day in the East.

FIG. 3.

Van Dyck. "St. Martin Dividing his Cloak." (Windsor Castle.)

WOUNDS IN PAINTING.

Sometimes they are very conventional in the way they are represented and at other times, when the artist has apparently been careful to avoid any morbid detail, they may be merely indicated. In the National Gallery are many representations of the Saviour after the Crucifixion in which His wounds are figured. In the fine picture by Cima, "The Incredulity of Thomas," the hands and feet of Christ have merely a little red patch, looking like a wafer applied on the instep and the back of the hand. There is no attempt to represent any bruising or laceration of the flesh. The red spot on both sides is placed immediately over the metacarpal bone of the middle finger, regardless of its position, and the artist leaves it entirely to the observer to imagine that a nail could have pierced the hand. In a fine picture of a Dead Christ which is now in the National Gallery Spagnoletto has represented a real wound on the instep of the left foot, but it is one which has been made in the flesh of his model after death. It is a clean-cut incision about two inches long. The edges of the skin are gaping and show the subcutaneous tissue perfectly free from any extravasation of blood. Looking more closely into the picture one sees the deep fascia over the muscles of the dorsum of the foot. There is no trace of any tearing or bruising. I have thought that the foot in this picture would be a very good illustration for a book on forensic medicine, as a type of a wound made in the skin after death.

LEPROSY AND OTHER DISEASES.

There is in the Royal collection at Windsor Castle a very striking picture by Van Dyck, called "St. Martin Dividing his Cloak," which contains a very vivid representation of a sufferer from leprosy, the other disease which was so prevalent some centuries ago, and which, therefore, was bound to find its place in art (Fig. 3). St. Martin, the Roman soldier, who lived in the time of Constantine the Great, is seen on horseback in full military attire. The armour which he wears is a beautiful specimen of that which was worn in the sixteenth century, but this, of course, is an artistic licence. With his sword he is cutting off a portion of his bright scarlet cloak to give to one of a group of beggars in the right hand corner of the picture. Two of these beggars are probably lepers. When I went one day this summer to Windsor to see this picture I was fortunate enough to be accompanied by my friend, Dr. Phineas S. Abraham, one of our great authorities on the subject of leprosy. We had a

FIG. 4.

Hogarth. "The Pool of Bethesda." (St. Bartholomew's Hospital.)

very careful look at the picture, and as this may have been the first occasion on which a specialist in leprosy has done so I think it would be interesting to give here a few notes we took at the time. The man in the centre of the group has a face which is typically that of a leper. There is a nodular ulceration on the left eyebrow showing below the edge of the bandage which is round his head. The bridge of the nose has fallen in. The nodular condition is apparent on the alæ of the nose and all round the mouth. Both lips are much swollen. There is nodular thickening on the upper part of the pinna of the left ear. There is apparently an atrophic condition of the left foot and ankle. On the right heel is some ulceration. The other man, who is turning his back to the observer, appears to have some ulceration on the right ear. His left hand, which is grasping the edge of the cloak, is thickened, and the fingers seem to be ulcerated. He, too, might pass for a leper.

St. Bartholomew's Hospital possesses two very large paintings by Hogarth, which form part of the decorations of the walls on the staircase leading up to the great hall. One is known by the name of "The Pool of Bethesda," the other "The Good Samaritan." The first (Fig. 4) contains a whole group of sufferers surrounding the Saviour, who stands near the edge of the pool. The cripple is seen sitting up on his bed in the middle of the foreground, he has a bandage round his head, and he has just removed the bandages from his leg, which in the oil painting shows some ulcers. Dr. Norman Moore has made a very careful study of this picture and I am indebted to him for a very interesting clinical demonstration which he gave me one day at the hospital on the patients who are represented surrounding the pool. Going from right to left we notice a man with thin, pale face and painful expression, with his right hand on his swollen abdomen, possibly a sufferer from cancer of the liver. Then a woman who has patches of psoriasis on both knees and on her right elbow. She is turning her face away from the Saviour. The tradition of the hospital is that this is a portrait of a well-known courtesan, Mistress Wood, who lived at the time in the city. The woman at her side is her maid. Then comes a woman with a baby who obviously has rickets. The expression of the baby's face is typical. It is very pale and ill-nourished, with large joints. Immediately behind the Saviour stands a woman with painful countenance raising her arm to her head and exposing an abscess in her breast. In the picture her pale face forms a great contrast to the red patch of inflammation on the breast. The man with his hand bandaged up has the face of a hard drinker and suggests a case of gout. The woman in the background must have acute melancholia. The next case is not so clear and it is only on referring to the lines of Scripture and finding that the blind are mentioned first amongst the impotent folk that one ventures on a diagnosis. The last two female figures represent the two different forms of consumption that used to be talked of. The extremely emaciated woman is clearly a case of very advanced phthisis. The other one with the red cheeks, the thick lips, the short, thick nose, represents the strumous or scrofulous type. In front there is a woman with bandaged feet. Hogarth has been very successful in representing the sufferers and no doubt had excellent opportunities for choosing his subjects from patients in the hospital, as he lived just outside the gates.

In another of the Royal collections, the one at Buckingham Palace, there is a picture which I must bring to your notice, with a subject of a somewhat lighter character. It is generally known as "Le Mal d'Amour," and is by Gerard Dow, the famous Dutch artist, who painted several pictures of a somewhat similar subject, the finest of all being now in the Louvre and known by the name of "La Femme Hydropique." The present one shows the doctor raising the urine glass to the light, while he holds his fair patient's hand, but she does not look seriously ill, nor show any of the signs of dropsy, like the patient in the Paris picture. She strikes one as being chlorotic, and the paleness of her face is enhanced by the fly blister which is applied to her temple, no doubt to relieve a sick headache. Her hand, placed upon her heart, lets the observer into the secret of her trouble, whilst the quaint, suspicious look which she directs towards the glass held up by the doctor suggests that she is afraid he may fathom her secrets more deeply than she would like.

HISTORY.

Leaving pictures of the old masters I pass on to pictures connected with the history of England.

Edward the Confessor is one of the earliest kings about whom any abnormality is mentioned. He was always described as of middle stature and kingly mien, his hair and beard being of snowy whiteness; his face was plump and its pinkish colour was constantly referred to. He was doubtless an albino. The many representations of him in coloured glass windows and in illustrated manuscripts of the Middle Ages give him that appearance, and the colour of his face is always a great contrast to that of any accompanying figures. But these, of course, are works of later centuries. Of his own time the impressions of his great seal are all we have left to show what he was like (Fig. 5). The face on

FIG. 5.

The Great Seal of Edward the Confessor. (British Museum.)

some of these, preserved in the British Museum, certainly suggests that it might be that of an albino. The plump cheeks and nose are remarkable. The sharp line between cheeks and beard show that the engraver wanted to produce the effect of colour-contrast between the two. The eyes are small and high up. It appears to me that no great straining of the imagination is required to take the effigy on the seal for the representation of an albino.

Keeping to the chronological order we now come to the Norman Conquest. One of the most graphic records of that great event is the tapestry of Bayeux, a roll 20 inches broad and 214 feet in length, worked in woollen thread of different colours. It is preserved now in the prefecture of Bayeux but is said to have been worked in England after the Battle of Hastings. Although the design is very rudimentary in point of art it is regarded as a very faithful representation of many details. I show you here a sketch (Fig. 6) from a small section of the reproduction which was made of the tapestry. You see the two ambassadors sent by William of Normandy to Harold of England. The interest of this section is centred on the dwarf, Turold, who is holding the rēins of the two horses. He is very short in stature, about half the height of the other figures. He has a fully developed head and is long in the body but his limbs are short and his arms are specially so. His head is closely shaven, which distinguishes him as one of the Normans, and he has a full beard. I think one may venture to say that the appearance of this dwarf is suggestive of a case of achondroplasia, one of those conditions which have been included in the category of congenital rickets. His name being conspicuously written over his head, between two lines, shows that he must have been an important character, or that he must have been picked out for a place in the picture on account of his peculiarities. Imagination might lead one far afield when studying this interesting tapestry. We have often heard of the blue blood introduced into the kingdom at the time of the Conquest, and we know the pride with which some noble families trace their descent from the Conquerors. Who knows whether some of the dwarfs we occasionally meet with in our streets might not trace their descent from

Turold, and whether achondroplasia might not have been imported by him into England at the time of the Conquest? But, as Horatio remarked to Hamlet, "to consider thus would be to consider too curiously."

FIG. 6.

The Dwarf Turold in the Bayeux Tapestry.

Queen Mary I. is another sovereign whose ailments are often spoken of in history. She died at the age of 42 years, probably from malignant disease the sequel to a long-continued functional disorder of the ovary. The dropsy, which had been an important symptom, was mistaken by her for pregnancy, one of her greatest hopes being to have an heir to succeed her on the throne. Sir Antonio More, who painted several portraits of her about the time of her marriage with Philip of Spain, also painted one at a later period of her life which is now in the Prado collection at Madrid. The photograph of it, which I show you here, makes her look much older than 40 years, her age when it was supposed to be taken, and gives her the peculiar appearance sometimes seen in sufferers from ovarian disease.

CARVING.

Leaving painting now for a short while and passing on to statuary and carving, I find a few interesting subjects to engage your attention. In Westminster Abbey, amongst the effigies of some of our kings and queens, there is nothing to denote any morbid peculiarity. In the Abbey, the tomb which seems to attract the most attention of the public, partly for its artistic merits and partly for its theatrical effect, is that of Lady Elizabeth Nightingale, a fine piece of sculpture, the work of Roubiliac. The lady is represented expiring by the side of her husband, who supports her with one hand while with the other he repels Death, which, in the shape of a skeleton, is emerging from the vault beneath and aiming his dart at the lady. This skeleton, partly concealed in loose folds of drapery, is a wonderful piece of sculpture and a study for the anatomist. A fine contrast is expressed by the artist in the extreme state of collapse of the lady and the energy and vigour of the husband, whose face is full of horror. In the Abbey we again meet with St. Roch and St. Sebastian. There are statues of the two saints to be seen in the imagery surrounding Henry VII.'s chapel.

A relic of bygone days of especial interest to our profession is now to be seen in the entrance hall of the Royal College of Surgeons of England. It is the sign-board of a doctor of the seventeenth century, and I am able to show you a photograph of it which I got leave to have taken through the kindness of the President of the College (Fig. 7). The sign-board is about three feet square, with figures arranged in groups, carved in wood in high relief and painted. The design is very bold so that the figures catch the eye and the meaning of each group is apparent at once. The art is somewhat rudimentary and one cannot help being struck by the shortness of the central figure of the doctor. This figure is probably a likeness of the doctor. He is in Jacobean costume with a short cloak and a large ruffle. In his hand he holds a roll of papers. He wears a beard and moustache. The costume and the whole get up make one think that the learned doctor must have tried to impress his patients with his knowledge and importance, by aping the appearance of his sovereign, James the First, the Solomon of the North. Behind the doctor are three shelves with drug pots and bottles. The seven surrounding panels contain scenes of the doctor's daily work. First, and perhaps in his day the most important, is the scene of a patient being bled. The woman is grasping a staff in her right hand and holding the bowl to receive the blood in her left, while she turns her face away. The middle top panel is the most interesting. Here the doctor is holding up the urine glass, while the patient, who is lying on the bed wrapped up in blankets, is evidently dropsical and suggestive of "the large white man with the large white kidney." The grouping in this division has no doubt been inspired by the pictures of some of the Dutch artists with whom the urologist was a favourite and frequently recurring subject. This sign-board was in the collection of the late Mr. Manley Sims who, I am informed, purchased it at a second-hand shop in London. It was said to have come from Pool, but nothing further can be traced of its history.

There is at the British Museum a small statuette carved in ivory, which is a very finished piece of workmanship of the Græco-Roman period (Fig. 8). It represents a dwarf with Pott's disease, sitting on a small pedestal with his legs doubled up. His right shoulder is very much raised and the front of his chest very prominent and pigeon-breasted. Amongst the terra-cotta statuettes remaining from the Greek period a good many are to be seen

FIG. 7.

An Ancient Doctor's Sign-Board. (Royal College of Surgeons of England.)

representing monstrosities, but it is rarely one is found for which an individual with a definite disease has been chosen for a model. Dwarfs with achondroplasia are sometimes found. The additional interest in this one is that it is one of the very rare specimens carved out of ivory. A better known piece of carving representing a monster is the Lincoln Imp, the main point of interest to be mentioned here being the well-defined hare-lip. It is a grotesque, to be seen below one of the corbels in the "Angel Choir" of Lincoln Cathedral.

FIG. 8.

Antique Statuette of a Dwarf. (British Museum.)

SOME MODERN PICTURES.

At the Tate Gallery, amongst the modern pictures dealing with this subject, one of the most striking is "The Death of Chatterton," by Mr. Henry Wallis, with whose kind permission I am enabled to show you this photograph. The young poet, who has just taken poison, is seen lying on a bed under the window through which the grey light of early dawn is coming in, giving a weird appearance to the scene. The position is quite a natural one. The body is turned over on to the side and the head has rolled off the pillow to the very edge of the bed. The hands are closed, and the right one, which hangs down on the floor, still grasps a handkerchief. Close to it on the floor is seen the empty poison flask. Rigor mortis has already commenced and is conspicuous in the neck and hands. I was particularly struck by the forcible rendering of the pallor of the face and neck, with its shadows of a leaden hue and the waxy and transparent look of the skin.

"The Death of Amy Robsart," by Yeames, is another picture in which I have admired the very correct rendering of the appearance of the skin after death. The body is lying at the foot of the staircase *like a snowdrift*, to use Walter Scott's words, and the artist has produced a wonderful study in white.

Millais's picture of "Ophelia" calls for a few remarks. A mistake that strikes me is that she has far too healthy a look, with her plump cheeks and rosy lips. I remember that at Bethlem Hospital Dr. G. H. Savage frequently pointed out to the students the patients of what he called "the Ophelia type." They were generally girls with sallow complexion, feeble circulation, who had been refusing their food, and, in consequence, were emaciated. A remark often made about the picture is that Ophelia is floating too high on the water. Millais here wanted to give the importance to the lines:—

> "Her clothes spread wide,
> And mermaid-like, awhile they bore her up."

If I were asked which is the most popular picture to-day in all our galleries, I should at once say it is "The Doctor" by Sir Luke Fildes, at the Tate Gallery. I think there is scarcely any other picture which touches, with such ability of execution, the emotional chord of old and young, educated and uneducated. I have thought that it would be interesting to take a record with a phonograph of the remarks which it calls forth from visitors to the gallery. The most frequent of all is: "How sad!" The child's complaint is said to be a puzzle for every new house surgeon who sees the picture hanging in the wards of a hospital, where it so often finds a place. The little which one can see of the child, with its flushed face, well-nourished limbs, and extended arm, suggests some acute chest complaint, probably pneumonia. A Sherlock Holmes might help one to form a diagnosis by pointing out the bowl and spoon on the stool, which have just been used to make a poultice, the soothing effect of which the doctor is now watching. In this picture morbid details are conspicuous by their absence. The whole interest of the subject, the critical condition of the child, is conveyed to the observer by the distress depicted in the face of the father, by the mother's attitude of despair, and by the kindly look of the doctor, which is expressive of deep concern for the recovery of his little patient.

CONCLUSION.

The conclusion which we are led to by contemplating these pictures is that any place which medicine can have in art must be but a subordinate one and that it is often the better taste for the artist to hide some morbid detail. The true artist has to judge which details he had best make use of, just as he has to choose that particular moment of a scene which is the most interesting, the most pathetic, or the most stirring. When he has to deal with a subject with a morbid side it is essential for him to cultivate some of that *reserve* so noticeable in Greek art. He should "use all gently ..... he must acquire and beget a temperance that may give it smoothness." He must use his art not only to hide art but to hide unpleasant details. What we require of him is to stir up our finer feelings and to rouse our admiration. For it is the very joy of our heart to admire where we can and nothing so lifts us from all our "mean imprisonments, were it but for moments, as true admiration."

> "We live by admiration, hope and love,
> And, even as these are well and widely fixed,
> In dignity of being we ascend."

HEART MASSAGE AS A MEANS OF RESTORATION IN CASES OF APPARENT SUDDEN DEATH,

WITH A SYNOPSIS OF 40 CASES.[1]

BY T. A. GREEN, M.D. EDIN., F.R.C.S. EDIN.,

SURGEON TO OUT-PATIENTS AT THE BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.

MASSAGE of the heart as a practical means of treatment in cases of sudden failure of the pulse and respirations, especially when such an accident follows the induction of chloroform anæsthesia, is based upon a series of physiological experiments which commenced with those of Schiff in 1874.[2] First of all he showed, in the case of a number of dogs that had been subjected to chloroform inhalation until the heart had ceased to beat and was distended with blood, that artificial respiration and stimulation by electricity were of no avail for restoring its action; but he was able to prove that "if the thorax is opened and at the same time air is insufflated into the lungs, by rhythmical compression of the heart with the hand (care being taken in doing so not to interfere with the coronary circulation) and continuous pressure of the abdominal aorta so as to bring the blood in greater quantity towards the head, it was possible to re-establish the heart beat even up to a period of 11½ minutes after the stoppage of that organ." Most of the dogs, however, died at the end of some hours, without any return of voluntary movements and after developing convulsive attacks.

No record of further experiments is forthcoming until in 1898 Tuffier and Hallion communicated a similar series

[1] A paper read before the Bristol Medico-Chirurgical Society on Nov. 14th, 1906.

[2] Recueil des Mémoires Physiologiques, vol. iii., 1874.

along with notes of a case in man.[3] In this series, having definitely ascertained by a registering apparatus that the circulation had been arrested, they were able to restore the heart beat to animals in which it had been suspended for a period of time varying from one to five minutes.

In 1900 Prus[4] published the results of experiments performed by him on 100 dogs. Of these, 21 were killed by chloroform, 44 were asphyxiated, and 35 were electrocuted. Of the dogs which were chloroformed the heart stopped in times varying from 50 seconds to 20 minutes after the commencement of the anæsthesia. Heart massage and artificial respiration were started in periods varying from 55 seconds to one hour after the arrest of the heart. In 16 cases—i.e., 76 per cent.—the results were successful, natural pulsation returning in periods varying from 30 seconds to 20 minutes. All the animals thus restored to life were killed at the end of the experiment save one, which was alive and well eight months later. In this particular case massage was commenced four minutes after arrest of the heart, and pulsation returned after it had been persisted in for five minutes. Of the 44 dogs which were asphyxiated 31 recovered, but of the 35 which were killed by electricity only five were restored to life.

In the same year Batelli[5] at Geneva confirmed the results of Prus, but in addition was able to show that in many of the unsuccessful cases massage caused fibrillary twitchings of the heart muscle instead of true contractions. These twitchings are very difficult to overcome and when once they appear make it almost certain that failure will result. He was, however, successful in overcoming them by the direct application to the heart of an alternating current of 240 volts.

Later, along with Prévost,[6] he showed that the fibrillary twitchings developed more frequently in animals that were experimented upon in a fasting state than in those which had had a few hours previously a feed of albuminoids and carbohydrates.

In 1902 Kuliabko[7] performed a remarkable series of experiments in which he used the hearts of rabbits killed for the purpose. He removed the hearts from the bodies and put them in an ice chest for 44 hours. At the end of this time he succeeded in restoring pulsation to them for several hours by injecting Locke's fluid (a solution of chlorides of sodium, potassium and calcium and bicarbonate of sodium in the proportions in which they exist in blood serum to which has been added a small quantity of dextrose) into the coronary arteries. Later, in a similar manner he restored the hearts of rabbits that had died from disease, even three or four days after death, and in August, 1902, he succeeded 20 hours after death in restoring pulsation to the heart of a boy aged three months, who had died from double pneumonia, which pulsation continued for over an hour.

Velich[8] repeated Kuliabko's experiments successfully and states that Spina of Prague injected into an artery in a direction towards the heart, a large quantity of normal saline solution (200 cubic centimetres in a dog) at from 35° to 40° C.; before this reaches the heart it closes the aortic valves and passes into the coronary arteries, and in thus doing he found that it stimulated the heart muscle. In this manner along with artificial respiration he revived animals in which the brain and cord had been destroyed, or which had been poisoned with alcohol, nicotine, &c., even when ten minutes had elapsed since the heart's action had been arrested.

Bourcart in 1903[9] in a series of experiments on dogs used the subdiaphragmatic method for massaging the heart and also had successful results. In one case the heart stopped five minutes after chloroform began to be administered. Massage was continued for three minutes. The dog was alive and well six weeks later.

Finally, D'Halluin in 1904 and 1905[10] describes a series of experiments and arrives at a number of important physiological conclusions. He considers that the massage acts mechanically by emptying the distended heart of blood and so causing an artificial circulation through the coronary arteries which is sufficient to restore its rhythmical beating, and that this in turn is able to excite the nerve centres and restore respiratory movements, muscular action, and corneal and pupillary reflexes. He also confirms the experiences of Prévost and Batelli that fibrillary twitchings of the heart muscle are the greatest bar to successful massage and shows that the longer the time which elapses between the stoppage of the heart and the beginning of the massage the greater is the probability of these twitchings appearing. For their treatment he finds in experiments that the intravenous injection of a solution of chloride of potassium (one-fifth of a grain for every kilogramme of the animal's weight) is the most useful and considers that it acts by first arresting the heart and so stopping the twitchings; then if massage is immediately commenced the salt solution is distributed through the general mass of blood and dilutes its tonic properties.

Such is in outline the experimental evidence which has led up to the adoption of this method of treatment in human beings. I will now give notes of two cases in which I have attempted to restore life by its means and then discuss some of the important points which arise from a study of the recorded cases.

CASE 1.—A boy, aged nine years, was admitted to the Bristol Royal Hospital for Sick Children and Women on August 28th, 1906, suffering from a congenital umbilical fistula. Beyond measles and whooping-cough at three years of age, he had had no other illness, and apart from the fistula he was in normal health.

I decided to operate on Sept. 7th and chloroform anæsthesia was commenced about 12.20 P.M. At 12.30 the skin incision was started, but as there was some movement on the part of the patient it was not proceeded with. A little more chloroform was given when the boy gave three rather deep inspirations and suddenly the breathing became difficult. After a few seconds it improved, but almost immediately fell off again. The lips became cyanosed, the skin pale, and the pupils of the eyes widely dilated and insensitive. No pulse could be felt at the wrist and on auscultation over the præcordial region no heart sounds could be heard. The respiration continued spasmodically at intervals but finally stopped about five minutes later. Meanwhile the head had been lowered and artificial repiration had been commenced, along with rhythmical traction on the tongue: $\frac{1}{10}$th of a grain of sulphate of strychnine was injected subcutaneously and also 20 minims of ether. Towels wrung out of boiling water were constantly applied to the præcordium, the limbs were tightly bandaged, and hot bottles were applied to the feet. About 15 minutes later another $\frac{1}{10}$th of a grain of strychnine, and 20 minims of ether were injected, the above measures being still persevered with but without success. At 12.55 P.M., 25 minutes after the heart had stopped, I decided to apply direct compression to the heart. Accordingly, standing on the right side of the patient, I quickly opened the abdomen through an incision beginning about one inch below and to the left of the tip of the ensiform cartilage and passing downwards and outwards along the left costal margin until it was large enough to admit the right hand. This I passed up towards the heart, the diaphragm only intervening between the two. The heart itself was felt to be quite immobile and flaccid. I then commenced rhythmical compression of the organ with my right hand pressing, through the relaxed diaphragm, against its lower and posterior surface, and my left hand outside over the præcordial region, the rate of compression being about 70 per minute. This method was continued for about two minutes without any appreciable effect and then I grasped the apex of the heart without any difficulty with my right hand, my thumb being over the right ventricle and my fingers surrounding the left ventricle. In this manner I went on with the intermittent compression and very soon I felt a slight fluttering of the organ and at the same time noticed that the pupils contracted slightly. Within a few seconds the heart began to beat forcibly with more than normal vigour at a rate of about from 90 to 100 beats per minute. Meanwhile the artificial respiration had been continued all the time, except when I was actually making my abdominal incision, and within a very short time of the restoration of the pulse spontaneous breathing asserted itself and gradually became regular; the skin and lips resumed their normal healthy appearance and at 1.5 P.M. the heart and lungs were performing their functions normally, although the patient had not recovered consciousness. The abdominal wound was

[3] Bulletin de la Société de Chirurgie, Nov. 2nd, 1898, p. 937.
[4] Wiener Klinische Wochenschrift, vol. xiii., pp. 451 and 483.
[5] Journal de Physiologie et Pathologie Générale, 1900, p. 443.
[6] Revue Médicale de la Suisse Romande, 1901, vol. xxi., p. 489.
[7] Centralblatt für Physiologie, 1902, vol. xvi., p. 330.
[8] Münchener Medicinische Wochenschrift, August 19th, 1903, p. 1421.
[9] Revue Médecine de la Suisse Romande, vol. xxiii., 1903, p. 637.
[10] Thèse de Lille, 1904, No. 22; Le Massage du Cœur, Presse Médicale, June 1st, 1904, No. 44, p. 345; and Contributions à l'Étude du Massage du Cœur, &c., Paris and Lille, 1905.

closed and the abdomen was bandaged tightly. The patient was taken back to bed and a rectal injection consisting of four ounces of normal saline solution and half an ounce of brandy was given. Nutrient enemata consisting of two ounces of peptonised milk, one egg, and two drachms of brandy were ordered every four hours.

The subsequent history of the case was unfortunately not so satisfactory. Sensibility never returned. During the afternoon the patient developed tonic spasms with rigidity of the muscles of the limbs and trunk. He broke out into severe perspirations, the temperature rose and the pulse and respirations increased in frequency. At 4.45 P.M., as the spasmodic attacks were severe, one-twelfth of a grain of morphine was given hypodermically. I saw the patient again about 6 P.M. and found the temperature to be 103·4° F., the pulse 168, and the respirations 40. The spasms still continued and I gave him a few whiffs of chloroform. This had the effect of relieving them and was a method employed occasionally during the evening, especially when he had a nutrient enema, as the slightest disturbance precipitated an attack. At 8 P.M. a saline enema (four ounces) containing ten grains of chloral hydrate was administered. This seemed to be effective as the rigidity of the muscles gradually wore off and there were no spasms after 10 P.M. At eight o'clock next morning the temperature was 102·4°, the pulse was 160, and the respirations were 52. The patient was obviously sinking and the heart-beat was getting very feeble. $\frac{1}{120}$th of a grain of digitalin was injected subcutaneously but death took place at 9 A.M., 20 hours after the heart-beat and respiration had been re-established.

CASE 2.—The second case was that of a boy, aged three years, who was admitted to the hospital on Oct. 14th, 1906, under the care of Dr. B. M. H. Rogers, suffering from diphtheria and as likely to require tracheotomy. Under antitoxic treatment, however, the difficulty of breathing passed off. On the 16th he was seen by Dr. Rogers at about 11 A.M. and seemed to be going on very well, but at about 11.30 A.M. he had a sudden attack of syncope and our senior house surgeon, Dr. C. C. Lavington, was just in time to see him give a few final gasping breaths. He at once commenced artificial respiration and the administration of oxygen through a glass funnel held in front of the mouth. I saw the child at about 11.45 A.M., and as both heart-beat and respiration had entirely ceased I at once opened the abdomen and commenced compression of the heart as in the last case. Artificial respiration was continued but the administration of oxygen was stopped. Compresses wrung out of boiling water were kept applied to the chest. All the limbs and abdomen were tightly bandaged and five minims of a 1 in 1000 solution of adrenalin and one-fortieth of a grain of strychnine were injected subcutaneously. As I was doubtful as to whether air was entering the lungs Dr. Lavington quickly performed tracheotomy, and after clearing the trachea of a large mass of membrane and frothy mucus by means of a feather, a cannula was introduced. The effect of this was good, as we were now able to get a free interchange of air through the cannula by means of our artificial respiration. About this time five ounces of normal saline solution were injected subcutaneously into the pectoral region and five minims of adrenalin solution were administered. No results having been arrived at by the use of these measures, and as I could not feel the heart definitely through the diaphragm I decided to open the pericardium by incising the diaphragm. This I did at about 12.30 P.M., when half an ounce of clear serous fluid escaped. Having enlarged the opening so as to admit three fingers, I was able to grasp the ventricular portion of the heart and compress it rhythmically. After continuing this for about five minutes I felt a slow wave of contraction pass over the organ, followed by others. At the end of another five minutes it was beating slowly at the rate of 48 beats per minute; the ears and lips, which had previously been quite livid, resumed their normal ruddy appearance and the tracheal and abdominal wounds bled slightly, thus showing that some oxygenation of the blood was going on. By elevating the costal margin with the left hand and pressing down the abdominal contents with the right hand it was quite easy to see the cardiac pulsation through the wound in the diaphragm. We were quite unable, however, to restore spontaneous breathing, and though in addition to the above measures we injected $\frac{1}{120}$th of a grain of sulphate of atropine directly into the heart muscle the heart itself stopped pulsating half an hour after it had recommenced to do so. Further massage made it contract again a few times, but it again stopped and after a few more attempts we reluctantly gave up our efforts at 1.20 P.M., one and a half hours after the massage had been commenced and one and three-quarter hours after the child had died.

I was led to try these measures through having seen them adopted by Mr. C. B. Keetley in a case at the West London Hospital in the summer of 1903. His case, which has not been published, was that of a man well advanced in middle life who was about to be operated upon for the radical cure of hernia. Chloroform was the anæsthetic employed and before the patient was completely under and in a fit of violent struggling his breathing and pulse stopped. The usual methods for restoration were adopted along with tracheotomy and faradisation of the phrenic nerves without avail and at the end of three-quarters of an hour Mr. Keetley opened the abdomen by the incision which I adopted and compressed the heart in the manner which I have described in my first case. The results, however, were negative. In giving me permission to make use of this case Mr. Keetley writes: "I have had another case rather like it since, in which we endeavoured to restore circulation by opening the abdomen and pressing the heart, through the diaphragm, but unsuccessfully."

From a clinical point of view the literature of this subject consists of reports of cases in various medical journals along with two papers, one by Keen of Philadelphia[11] and the other by Ch. Lenormant of Paris.[12] In preparing this article I have endeavoured as far as possible to trace the experiments and cases to their original sources, but where this was impossible I have gladly availed myself of the accounts of them given by these two authors. To their records of cases I am able to add several more and after careful investigation to append a list of 40 cases, 36 of which have been previously reported and four of which are now brought forward for the first time. The figures in parentheses which occur hereafter refer to the numbers of the cases which will be found at the end of the article. I am sure, however, that they do not comprise the total number, as probably heart massage has been done by other surgeons who have not thought it necessary to communicate their results to the medical press. Six out of the 40 cases communicated to Keen by Crile (*vide* Keen's paper), along with a similar case reported by Cheevers, in the opinion of some may not come quite within the scope of this paper; no actual cutting measures were undertaken by him in any of them, but his methods have such an important bearing on the practical question that I do not hesitate to include them. The first reported case was that of Tuffier and Hallion in 1898, but the credit of trying the method for the first time would seem to belong to Niehaus of Berne, who used it, without success however, so long ago as 1880. The first partial success was obtained by Maag in October, 1900, when he restored the pulse and spontaneous respiration for a period of 11 hours, but to Stirling and Lane we owe the report of the first complete success in 1902, though Igelsrud's successful case was performed in 1901 but was not reported until 1904. There are a few important points in connexion with the subject to which it seems worth while to refer.

The class of cases in which heart massage has been employed.—On 30 occasions the method was used for sudden cardiac syncope under anæsthetics, and in 24 of these cases the anæsthetic was certainly chloroform (1, 2, 3, 5, 7, 8, 9, 10, 11, 12, 13, 15, 17, 18, 19, 20, 21, 23, 32, 33, 34, 36, 37, and 38). In nine of these instances (1, 3, 8, 11, 12, 13, 18, 19, and 38) the syncope occurred in the early stage of the anæsthesia before the operation was commenced; and in 13 instances (5, 7, 9, 10, 15, 17, 20, 21, 23, 32, 33, 34, and 36) it came on during the course of the operation, and twice (2 and 37) the time is not specified. Struggling of the patient and the giving of more chloroform are mentioned six times (7, 10, 15, 19, 32, and 38) and in five cases (10, 15, 20, 21, and 32) it is noted that the heart stopped before the breathing. In three cases (14, 29, and 35) the anæsthetic was ether; in one (40) it was chloroform and ether mixed and in two cases (16 and 26) the nature of the anæsthetic is not mentioned.

In addition to the anæsthetic cases, the method has been tried once in a case of pulmonary embolism (4); once in a case of hanging (6); twice in cases of tracheal asphyxia (22 and 31); once after opening a post-pharyngeal abscess

[11] Therapeutic Gazette, April 15th, 1904.
[12] Revue de Chirurgie, March, 1906.

without an anæsthetic (30); once in a case of diphtheria (39); twice in cases of severe injury to the brain and skull (24 and 25); and twice for electric shock (27 and 28).

Four methods of operation have been utilised to gain access to the heart. They are particularised as follows:—

1. *The thoracic method.*—In this method a somewhat rectangular flap is cut over the left side of the thorax, which may have its base outwards or inwards. When the base is outwards the upper border of the flap (i.e., the one opposite the base) is made along the left sternal border and the sides of the flap are carried along the line of the ribs and their cartilages adjacent to which they are made. Two or three costal cartilages, selected from the third to the sixth, are thus laid bare and cut through at their junction to the sternum and the corresponding ribs are divided with bone forceps near the base of the flap in the nipple line. The pericardium is now exposed and may or may not be opened according to the desire of the surgeon. If the flap is cut with its base inwards (Wehr) this is made along the right border of the sternum and the upper border lies about the left mammary line. The left ribs are divided near this line and the whole width of the sternum is cut through with saw and chisel. This route, the first that was used to gain access to the heart with a view to massaging it, has been employed in 17 of the recorded cases (1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 15, 21, 22, 23, 34, and 35). Of these, the pericardium was opened in eight cases (1, 5, 6, 8, 9, 15, 21, and 34); was left intact in five cases (4, 7, 12, 13, and 22); while in the other four cases (2, 3, 23, and 35) no statement is made on this point. That it is necessary in ordinary circumstances to open it is doubtful. Good compression has been made without doing so and if it is left intact the need of subsequent suturing will not arise and the danger of septic infection of its cavity will be avoided. There are two great objections to this method of procedure. The first is that the operation is in itself a slow and severe one, requiring special instruments which may not always be at hand. The second is that in resecting the ribs there is great danger of injuring the pleura and causing a left pneumothorax, an event which would make restoration of the heart beat and spontaneous breathing much more difficult to accomplish. This accident has certainly happened in four cases (5, 7, 22, and 34) and possibly in others. By this method one successful (9) and three partially successful results (7, 15, and 34) have been obtained.

2. *The transdiaphragmatic abdominal route.*—This was the second method to be employed. It was suggested by Mauclaire, because in his first case (5) he was unfortunate enough to get a pneumothorax. In April, 1902, he had occasion to drain the pericardium in a case of severe injury to the chest,[13] and did so by opening the abdomen in the middle line between the xiphisternum and the umbilicus, and incising the diaphragm from its under surface. Having found the heart easy of access by this method he used it in his second case of heart massage (11). After opening the abdomen an assistant presses down the left lobe of the liver, the stomach is held down by compresses, and the diaphragm is exposed. His incision through it passes obliquely from right to left and from before backwards, starting slightly in front of the summit of its concavity and passing towards the apex of the heart but not involving it. As soon as the diaphragm is penetrated the remainder of the incision is made with scissors on the finger as a guide. The incision can be made large enough to admit two or three fingers and the heart is easily compressed between them. This method has been used on four occasions (9, 10, 18, and 39) but without success.

3. *The subdiaphragmatic route.*—This is the method most frequently adopted at the present time. It was first used by Lane in 1902 and altogether has been employed in 12 cases (14, 16, 17, 19, 20, 31, 32, 33, 36, 37, 38, and 40). The technique I have already described in the report of my first case. It is a method which would naturally suggest itself in cases (e.g., 14, 16, 20, 32, and 33) where the abdomen is already opened, though in these circumstances Igelsrud chose the thoracic route in his successful case (9). All that the surgeon has to do, after enlarging his incision if necessary, is to push his hand up to the under surface of the diaphragm, through which it is usually quite easy to define the heart and press it up against the posterior surface of the thoracic wall, counter pressure being made at the same time with the other hand on the exterior of the chest. In those instances where the abdomen has not already been opened (17, 19, 31, 36, 37, 38, and 40) a median incision is usually made between the ensiform cartilage and the umbilicus, but Mr. Keetley in his first case opened it along the left costal margin and I followed his example. This latter incision seems to have certain advantages. The left lobe of the liver does not interfere so much with the manipulations, and in incising the diaphragm (as I did in my second case) a very clear view is obtained of the point for incision by simply raising the costal margin and holding down the stomach and intestines with a flat sponge, the liver not being in the way at all. This method has given the best results so far, with six complete successes (14, 16, 20, 32, 36, and 40) and three partial recoveries (31, 33, and 38).

4. *Crile's method.*—The fourth method of procedure is that of Crile, of Cleveland, U.S.A. In his work on "Blood Pressure in Surgery" he points out that in cases of shock and syncope, and especially in cases of accident during chloroform anæsthesia, there is a great fall of blood pressure and venous engorgement of the splanchnic area; in order therefore to revive people under these conditions it is not only necessary to start the heart again, but above all the blood pressure must be raised and spontaneous respiration re-established. His method, then, consists of making rhythmical pressure on the chest wall over the heart and the use of Fell O'Dwyer's apparatus for producing artificial respiration. To raise the blood pressure he infuses solutions of adrenalin of strengths varying from 1 in 25,000 to 1 in 50,000 directly into a vein and as the effects of this drug, which causes contraction of the muscular tissues in the vessel's walls, are somewhat evanescent, he continues the infusion at the rate of three cubic centimetres per minute if necessary. In addition to this he applies a rubber suit to the patients, which by inflation can produce an even pressure over the whole surface of the body and in this way he mechanically increases the blood pressure. This suit is kept on after the pulse and the breathing are restored and then can be gradually deflated while the patient is in bed. Although the rubber suit is not available for everybody similar results, in a less degree, can be obtained by firmly bandaging the limbs and applying a tight binder to the abdomen. This method has been employed in seven recorded cases (24, 25, 26, 27, 28, 29, and 30), one of which (29) was successful and two (25 and 26) were partially so.

In looking at the results that have been achieved we find that out of the 40 cases nine are reported as being entirely successful (viz., 9, 14, 16, 20, 29, 32, 35, 36, and 40), and eight as being partially so—i.e., cases in which the pulse and respiration were definitely restored, but which ultimately ended fatally (7, 15, 25, 26, 31, 33, 34, and 38). The remainder were fatal. An examination of the successful cases, however, shows that the value of heart massage is more forcibly brought out in some than in others. In all of them (except in Crile's) the usual means of restoration (viz., artificial respiration, tongue traction, &c.) were first of all tried, but in many only for a very short time and in these latter, when heart massage was adopted, pulsation was restored very quickly. The following list of them brings out the points I am referring to now. A fuller account is appended.

TABLE I.—*Giving Particulars of Nine Successful Cases of Heart Massage.*

Case.	Time of ordinary methods.	Time of restoration of heart from commencement of massage.	Time of restoration of breathing from commencement of massage.
Igelsrud (9) ...	3-4 minutes.	1 minute.	—
Lane (14)... ...	Uncertain.	1 or 2 squeezes.	12 minutes.
Gray (16)... ...	Uncertain.	2 or 3 squeezes.	—
Cohen (20) ...	2 minutes.	1 minute.	—
Crile (29)... ...	His special methods commenced immediately.	5 or 6 minutes.	5 or 6 minutes.
Sencert (32) ...	7-8 minutes.	5 minutes.	7 minutes.
Conkling (35)...	2 minutes.	1 minute.	—
Smith (36) ...	3 minutes.	1 minute.	A few seconds after heart beat had been restored.
Ransay (40)...	4 minutes.	1 minute.	Soon after heart beat had been restored.

[13] Gazette des Hôpitaux, June 24th, 1902, p. 701.

One cannot help thinking that although in these cases the heart was found to be flaccid the continuance of the ordinary methods for a rather longer time might have been sufficient in some of them to restore its beating. In fact Igelsrud states (*vide* Keen's paper) that so far as his own experience is concerned "the case is not convincing because the ordinary methods of restoration were only tried for three or four minutes and traction of the tongue was continued during the whole time of the heart massage." In the cases of Crile and Sencert, however, not only had the heart stopped from five to eight minutes before the massage was commenced but it had to be continued for five or six minutes before pulsation had been restored, and spontaneous breathing did not reappear until artificial respiration had been proceeded with for a further period of from five to seven minutes. When, however, we come to look at the partially successful cases the evidence, to my mind, is of a much more decided character. In all of them the pulse and respiration were definitely re-established and so far the method completely justified itself.

TABLE II.—*Giving Particulars of Eight Cases in which Heart Massage was Partially Successful.*

Case.	Time of ordinary methods.	Time of restoration of heart from commencement of massage.	Time of restoration of breathing from commencement of massage.	Survival.
Maag (7)	10–15 minutes.	A few compressions.	3 hours.	*
Sick (15)	45 minutes.	30 minutes.	30 minutes	24 hours.
Crile (26)	*Nil.*	9 minutes (Crile's special methods).	12 minutes.	2 hours.
Crile (25)	*Nil*, but at least 8 minutes elapsed without any attempts.	16 minutes (Crile's special methods).	16 minutes.	34 minutes.
Gray (31)	4–5 minutes.	4 minutes.	4 minutes.	2 hours.
Depage (33)	15 minutes.	A few instants.	1 hour.	16 hours.
Lenormant (34)	*Nil.*	6–8 minutes.	½ hour.	5 hours.
Green (35)	25 minutes.	5 minutes.	5 minutes.	20 hours.

* Breathing stopped at end of half an hour. Heart continued to beat for eight hours.

Fuller details of the above cases are appended, but it ought to be stated here that in two of them (25 and 34) the condition of the patient was one which necessarily proved fatal.

To summarise the information derived from the facts we find: 1. That it has been possible in human beings to restore the heart beat by massage when ordinary measures of resuscitation have failed, even when the massage has not been commenced until the heart had been stopped for 45 minutes, but a definite and complete cure has never yet been effected when this interval has been longer than from seven to eight minutes. 2. In many of the cases the adoption of massage for a period of from 30 seconds to five minutes has been sufficient to restore the heart beat but it has sometimes been necessary to go on with it for 15 minutes or even longer. 3. Artificial respiration and its adjuncts must also continuously be applied, and sometimes it is necessary to persevere with it long after pulsation is restored in order to re-establish the respirations.

Of the unsuccessful cases very little need be said. In two of them (4 and 23) a few pulsations and respirations were obtained, and in six of them (6, 8, 22, 24, 30, and 39) heart contractions occurred but no spontaneous breathing. In two or three cases (1, 12, and 13 (?)) it is stated that the fibrillary twitchings appeared, a condition of things which, according to Batelli, D'Halluin, and others (*vide ante*) is an almost certain hindrance to the restoration of the heart's action. It seems to me that there may be some similar cause which gives rise to the fibrillary contractions of the heart muscle and the spasms of the voluntary muscles, which along with the absence of return of consciousness, appeared in the dogs on which Schiff originally experimented and in the cases in man recorded by Lenormant and myself.

It has been frequently shown by Leonard Hill and others that sudden occlusion of the cerebral vessels, whether from ligature or spasm, gives rise to definite convulsive attacks and sudden occlusion of the coronary arteries has also been shown to cause fibrillary contractions of the myocardium. Whether then the onset of muscular spasms some time after the pulse and respiration have been restored (in Lenormant's case the interval was one and a quarter hours and in my own one hour) can be accounted for by a sudden and sustained cerebral anæmia, or whether, as has been suggested by Walker Hall, they are due to the accumulation of metabolic, or even autolytic products, further investigation into the condition of the urine and tissues in similar cases may determine. At all events we cannot exclude the possibility that in these cases the re-establishment of the circulation does not necessarily indicate the immediate reconstitution of metabolism in the chief metabolic tissues, or even in the cerebral and spinal cells; and as regards the latter, it is well known that when the circulation is arrested, actual autolytic changes soon appear in the ganglionic nerve cells concerned in the mechanism of voluntary movement though those of the heart and respiratory centre retain their vitality for a longer period. The practical point is that if either of these views is correct the commencement of massage must not be delayed too long, not only for fear that fibrillary contractions of the myocardium may supervene, but also to avoid permanent loss of consciousness and the development of spasms of the voluntary muscles.

Is heart massage then a method of treatment which should commend itself to the practical surgeon? In suitable circumstances, and in view of the accumulation of evidence in its favour, it seems to me that the answer must be in the affirmative. It remains to consider the circumstances in which it should be employed and its proper place in the series of efforts for resuscitation which ought to be undertaken when the necessity arises. The kinds of cases in which it may be used with a fair prospect of success are: (1) cases of primary arrest of the heart in a condition of acute dilatation from poisoning by an overdose of a powerful volatile drug, such as chloroform; (2) cases where the gradual accumulation of volatile poisons, such as chloroform, leads to primary paralysis of the respiratory and vaso motor centres followed by stoppage of the heart; (3) cases of asphyxia; and (4) cases of suspension of the functions of the vital centres from simple exhaustion or injury, and consequent stoppage of the heart. In all these cases the restoration of the breathing and the raising of the blood pressure must be obtained by their own particular measures, and where a gradual weakening of the respiratory and vaso-motor centres is perceived before the arrest of the heart has come about the removal of the cause and the commencement of artificial respiration and its adjuncts may, and probably in most cases will, be sufficient to restore them to their normal conditions and prevent paralysis of the heart; but when the heart has once stopped for a definitely appreciable time it is very doubtful whether artificial respiration has any influence whatever upon it. In these circumstances direct mechanical stimulation of the organ in the form of massage has been proved both by experiments and in practice to have the power of reviving its beating. As D'Halluin states, it probably does this by creating afresh the circulation through the coronary vessels. In Crile's method I should think that the rubber suit and adrenalin injections by emptying the abdominal vessels fulfil this same mechanical function of starting a coronary circulation, for I do not think that the rhythmical pressure over the fairly rigid chest wall of an adult, at any rate, can have any direct compressing effect upon the underlying heart. Having started the heart beating, artificial respiration, by obtaining a free ventilation in the lungs, encourages a pulmonary circulation, oxygenation of the blood, and the withdrawal of poisonous vapours from the vital centres *via* the lungs, until in successful cases their functions in turn again become active and spontaneous breathing is restored.

In conclusion, it seems to me that the order of procedure in these cases of sudden heart and respiratory failure should be as follows. 1. Immediate lowering of the head and the commencement of artificial respiration and tongue traction, taking care that a free access of air to the lungs is possible and therefore implying tracheotomy if necessary. 2. If the abdomen is open, pressure on the abdominal aorta to confine the circulation to the upper part of the body. If it is not open the intravenous injection of adrenalin solution and the application of Crile's rubber suit or, failing this, tight bandaging of the limbs and abdomen. 3. The subcutaneous or intravenous injection of normal saline

solution, partly to raise the blood pressure and partly to dilute any poisons which may be in the blood and tissues. 4. If the above methods have not been successful after being applied for from eight to ten minutes heart massage by the subdiaphragmatic method. This route should always be adopted, unless the chest is already opened or to be operated upon, as being the easiest way of access, the one fraught with least danger to the patient and the one which has given the greatest percentages of success. The time is fixed at from eight to ten minutes because eight minutes is the limit of the interval at which up to the present time a complete success has been obtained in man, and if it is exceeded the danger of the production of fibrillary twitchings, inability to restore consciousness, and the development of spasms in the voluntary muscles with consequent failure of the manipulations have to be taken into consideration. The unavoidable extension of this limit should, however, be no bar to the adoption of the method, as very hopeful results have been obtained, even when 45 minutes have elapsed from the onset of the syncope before it has been tried. 5. After normal pulsation has returned to the heart, artificial respiration must be continued until spontaneous breathing has been restored or until circumstances make it improbable that such restoration will be obtained.

SYNOPSIS OF RECORDED CASES OF HEART MASSAGE.

Keen quotes Cases 1 to 15, 17, 23 to 29; Lenormant quotes Cases 1 to 15, 17, 18, 20 to 23, and 32 to 34.

1. Niehaus, 1880 (Zesas: *Centralblatt für Chirurgie*, 1903, p. 588).—A man, aged 40 years. Operation for goitre which was causing dyspnœa and dysphagia. Chloroform anæsthesia was being induced without excitement when the breathing and pulse stopped and the patient became cyanotic. Artificial respiration was tried for some time without effect. Then the ribs were resected, the heart was laid bare, and rhythmical compression was commenced. The artificial respiration was continued. The heart, which was at first soft, became somewhat firmer and fibrillary twitchings appeared, but no normal contractions. The patient died.

2. 1892 (Bazy: *Bulletin et Mémoire de la Société de Chirurgie*, 1898, p. 939).—Bazy saw a colleague perform heart massage, in a case of chloroform syncope, by the thoracic route. The effects were *nil* and the patient died.

3. Michaux (*Bulletin et Mémoire de la Société de Chirurgie*, 1898, p. 976).—Chloroform syncope came on in the early stages of anæsthesia. Ordinary means of restoration failed and massage of the heart was performed by the thoracic route. The result was *nil* and the patient died.

4. Tuffier and Hallion (*Bulletin et Mémoire de la Société de Chirurgie*, 1898, p. 937).—A man, aged 24 years. A pericæcal abscess with gangrenous appendix had been opened and drained. On the fifth day after the operation the heart and pulse suddenly stopped. Artificial respiration and traction on the tongue were tried for two or three minutes without effect, and then Tuffier made an incision in the third intercostal space (left) and made rhythmical compression on the heart, through the unopened pericardium, for one or two minutes. The heart fluttered and then contracted properly and the pulse and respiration returned. After a few respirations the pulse again failed and rhythmical compression again started it for a few minutes when it finally stopped. The cause of death was pulmonary embolism.

5. Mauclaire, 1899 (*Gazette des Hôpitaux*, Dec. 5th, 1901, pp. 1347–48).—Chloroform syncope came on at the end of the operation and the heart and respiration stopped. The fourth and fifth left costal cartilages were resected, in doing which a pneumothorax was produced. The pericardium was opened and the heart was compressed. The results were *nil* and the patient died.

6. Prus, January, 1900 (*Wiener Klinische Wochenschrift*, No 21, 1900, p. 486).—A man, aged 48 years, who had hanged himself. The usual methods of restoration failed and at the end of two hours Wehr, after performing a tracheotomy and blowing air into the lungs, exposed the heart by the thoracic route and Prus compressed it. Saline solution was also injected into a vein. At the end of 15 minutes rhythmical contraction of the auricles was observed but this stopped when the massage was stopped and began again when the massage was restarted. The contractions gradually got weaker and weaker and the man died.

7. Maag, October, 1900 (*Centralblatt für Chirurgie*, 1901, p. 20).—A man, aged 27 years, who had healthy organs, but who some years previously had been a heavy drinker, though he was then a total abstainer. An operation of nerve-stretching for sciatica was undertaken. Early in the operation he struggled and more chloroform was given, when he became asphyxiated, but was brought round by ordinary means. At the end of the operation he again became asphyxiated and this time ordinary measures were tried for from 10 to 15 minutes without avail. The heart was then laid bare by the thoracic route, the third and fourth ribs being divided. During this operation a pneumothorax was produced. The heart was grasped through the unopened pericardium and was rhythmically compressed. Tracheotomy was also performed and air blown into the lungs. After a few compressions the heart began to beat, at first feebly, then gradually more firmly. At the end of half an hour the first natural respiration was taken, but it was not until the end of three hours that these were deep and regular, so that it was safe to stop the blowing in of air through the tracheal tube. The patient was put to bed but he never recovered consciousness. Half an hour later the breathing suddenly became worse and stopped. Oil of camphor and saline solution were infused and faradism was applied to the phrenic nerve but breathing never returned. The heart, however, continued to beat for eight hours longer when it finally stopped, 11 hours after its action had been re-established.

8. Depage (*Annales de la Société Belge de Chirurgie*, 1901, p. 520).—A man, aged 47 years, who was to undergo radical cure of an irreducible inguinal hernia. He also suffered from dilatation of the right side of the heart and albuminuria. Chloroform anæsthesia was commenced but very soon respiration and pulse failed. Artificial respiration and tongue traction were tried for 15 minutes and the actual cautery was applied to the præcordium without producing any effect. The heart was then laid bare through a large flap, extending from the second to the fifth left ribs and the pericardium was opened. Heart massage, artificial respiration, and tongue traction were then employed and a few slight spontaneous contractions followed, but these gradually failed and ceased at the end of 20 or 30 minutes. The patient died.

9. Igelsrud, 1901 (Keen: *Therapeutic Gazette*, April 15th, 1904).—A woman, aged 43 years. Abdominal hysterectomy for cancer of the uterus. The patient collapsed near the end of the operation. Artificial respiration and faradisation of the phrenic nerve were tried for three or four minutes without success and then the third and fourth left ribs were resected and the pericardium was opened. The heart was compressed and at the end of one minute pulsation returned, but getting feeble again the compression was repeated for another minute when the heart beat became firm and regular. The patient made a good recovery.

10. Poirier, Dec. 5th, 1901 (*Bulletin et Mémoire de la Société de Chirurgie*, 1902, p. 43).—A woman, aged 58 years, was operated on for cancer of the stomach. During the operation the patient struggled, more chloroform was given, and the pulse and respirations suddenly stopped. Artificial respiration, tongue traction, tracheotomy, and insufflation of oxygen and faradisation of the phrenic nerve caused slight movement of the chest only. The diaphragm was split and the heart was seized and compressed. There was no response though the manipulations were continued for some time and the patient died.

11. Mauclaire (*Gazette des Hôpitaux*, 1902).—Early chloroform syncope. Artificial respiration, tongue traction, and tracheotomy were of no avail. The heart was compressed through an incision in the diaphragm, but without avail, and the patient died.

12. Gallet (*Journal de Chirurgie et Annales de la Société Belge*, 1902, p. 165).—A man, aged 28 years. Radical cure of inguinal hernia. The patient also had tuberculous peritonitis. Cardiac syncope came on after a few inhalations of chloroform. The usual methods were adopted for 20 minutes without avail, and then the chest was opened, but not the pericardium. Rhythmical massage and artificial respiration were continued for some time, but only fibrillary twitchings of the heart muscle were obtained, and the patient died.

13. Gallet, 1902 (*ibid.*).—A woman, aged 30 years, suffering from pelvic abscess. Syncope occurred in the early stages of chloroform anæsthesia. The usual methods were tried for 30 minutes and then massage was done by the thoracic route without opening the pericardium. The results were similar to those in the preceding case and the patient died.

14. Starling and Lane (THE LANCET, Nov. 22nd, 1902, p. 1397).—A man, aged 65 years. Abdominal section for adhesions around the colon. Anæsthesia was produced by gas and ether. The appendix had been removed when the pulse began to flag and then both pulse and respiration stopped. Artificial respiration was of no avail and the heart was massaged by the subdiaphragmatic method. After one or two squeezes it recommenced to beat but artificial respiration, &c., were continued for 12 minutes before spontaneous breathing was restored. The operation was completed and the patient made a good recovery.

15. Sick, Dec. 18th, 1902 (*Centralblatt für Chirurgie*, Sept. 5th, 1903, p. 981).—A youth, aged 15 years. Laparotomy for tuberculous ascites. Near the end of the operation the patient struggled and more chloroform was given. Syncope came on. Artificial respiration and compression of the chest wall over the heart were tried and a slight respiration and pulse beat were elicited but these soon passed off. 45 minutes after the onset of the syncope heart massage by the thoracic route was undertaken with a result that in 15 minutes breathing was restored and a few irregular twitchings of the heart were followed by a good contraction. After another 15 minutes the heart was beating firmly and regularly and respiration was normal. The wound was closed and two hours after the termination of the operation the patient became conscious and complained of thirst and dyspnœa. He continued in this condition for 24 hours when he suddenly died. Post mortem the heart was found to be firmly contracted; there was a right fibrinous pericarditis.

16. Gray, December, 1902 (THE LANCET, August 19th, 1905, p. 506.)—A woman, aged 60 years. Operation for ovarian cyst. The kind of anæsthetic is not specified. During the operation the breathing and the pulse stopped. As artificial respiration proved of no avail subdiaphragmatic compression of the heart was adopted. Two or three squeezes were sufficient to start it again and the patient made a good recovery.

17. Keen, Feb. 6th, 1903 (*Therapeutic Gazette*, April 15th, 1904).—A man who was operated on for complete extirpation of the larynx. Preliminary tracheotomy was performed. Chloroform and oxygen were used to produce anæsthesia. Near the end of the operation syncope occurred. Pure oxgyen and one-twentieth of a grain of strychnine were administered; artificial respiration, tongue traction, and faradisation of the phrenic nerve were employed. At the end of ten minutes the abdomen was opened in the middle line and the heart was massaged for half an hour by the subdiaphragmatic method. No recovery took place and the patient died.

18. Mauclaire, February, 1903 (Zesas: *Wiener Klinische Wochenschrift*, 1904).—A man, aged 36 years. Radical cure of inguinal hernia. Early chloroform syncope came on and artificial respiration was tried for 30 minutes without avail. Then tracheotomy was performed and afterwards heart massage by the transdiaphragmatic route for ten minutes and electricity to the phrenic nerve for two or three minutes. The effect of these measures was *nil* and the patient died.

19. Keetley, 1903 (*vide ante*).

20. Cohen (*Journal of the American Medical Association*, Nov. 7th, 1903).—A woman, aged 32 years. Adherent ovarian cyst; chloroform anæsthesia; 15 minutes after beginning the operation the patient became cyanotic and pulseless. The respiration stopped after the heart. Usual methods were tried for two minutes and then the heart was grasped through the intervening diaphragm and massaged. After 30 seconds a feeble beat was felt and in one minute the pulse was regular and registering 80 per minute and the respiration was partly re-established; two minutes later the respiration was normal. The operation was continued and completed in 30 minutes and the patient made a good recovery.

21. Druchert, September, 1903 (D'Halluin: "Les Tremulations Fibrillaires," 1905).—A youth, aged 19 years. Decapsulation of both kidneys for nephritis. The patient had albuminuria with general œdema, ascites, and hydrothorax. Chloroform syncope occurred at the

end of the operation, the heart stopping before the breathing. Tongue traction was tried for three minutes without success and then heart massage by the thoracic route with opening of the pericardium was commenced five or six minutes after the heart stopped and two or three minutes after arrest of the breathing. The efforts were unavailing and the patient died.

22. Le Fort, Nov. 17th, 1903 (*Echo Médicale du Nord*, 1904).—A man suffering from cancer of the œsophagus. Intercrico-thyroidean laryngotomy for tracheal contractions. Sudden asphyxia came on and a low tracheotomy being of no avail, five minutes after the accident the fourth, fifth, and sixth left ribs were resected, and the pericardium was exposed but not opened. Pneumothorax was produced. Rhythmical compression produced a few spontaneous contractions which soon stopped and the patient died.

23. Djemil Pacha (*New York Medical Record*, Jan. 23rd, 1904, p. 146).—A man, aged 30 years. Operation for fistula in ano. Anæsthesia by chloroform. During the operation cardiac syncope occurred. After two minutes' trial of ordinary measures without success the thorax was opened and compression of the heart was carried out. The heart movements were re-established and some respirations were secured but ultimately the patient died.

24. Crile (Keen: *Therapeutic Gazette*, April 15th, 1904).—A man who had sustained compound fracture of the base of the skull. The patient died as he was brought into hospital. Nine minutes later, rhythmical compression over the heart, artificial respiration by Fell-O'Dwyer apparatus, infusion of 1 in 50,000 solution of adrenalin chloride into the median basilic vein, and the application of the rubber suit were undertaken. Directly following this treatment the heart resumed its beating with more than normal vigour. This continued for 28 minutes and then it stopped. Neither consciousness nor spontaneous breathing was restored.

25. Crile (*ibid.*).—A man (a companion of above last patient) suffering from injury to the base of the brain. At least eight minutes, and probably more, after the pulse and the respiration stopped the same treatment as in the last case was adopted. In 16 minutes the heart suddenly began to beat regularly and more strongly than normal, and this was followed by spontaneous respiration. A depressed fracture of the skull was raised and the wound was closed. The patient lived for 34 minutes when the breathing and the pulse both failed and could not be restarted.

26. Crile (*ibid.*).—A man, aged 38 years. Operation for tumour of the brain which was found under the occipital lobe; while trying to remove it syncope came on and the patient died. The same measures were adopted as in the last two cases and in nine minutes from beginning the resuscitation the heart began to beat and in 12 minutes spontaneous respiration was re-established. The infusion of adrenalin (strength 1 in 25,000) into the vein was continued at the rate of three cubic centimetres per minute, but the patient died two hours afterwards.

27. Crile (*ibid.*).—A male, aged 40 years, who was killed by an electric shock. Two and a half hours afterwards the above measures were undertaken by Dr. Ford, Dr. Heath, and Dr. Dickinson but without avail as rigor mortis was coming on.

28. Crile (*ibid.*).—A male, aged 26 years, who was killed by an electric shock. Four hours later the above method was attempted by Dr. Lower and Dr. Ford without success.

29. Crile (*ibid.*).—A woman, aged 28 years. Operation for exophthalmic goitre under ether anæsthesia. Near the end of the operation the patient collapsed and first the heart and then the respiration stopped. The rubber suit (which had been loosely applied before the operation) was inflated and pressure over the heart was made. In five or six minutes the heart slowly recovered its beat and spontaneous respiration was re-established. The operation was completed and the patient was sent to bed in the rubber suit which was gradually deflated during a period of one and a half hours. The patient made a good recovery.

30. Cheevers (*Boston Medical and Surgical Journal*, Jan. 5th, 1905, p. 10).—A female child, aged three years. Opening a post-pharyngeal abscess without an anæsthetic. During the preliminary manipulations the pulse and respirations failed. The abscess was evacuated and then a No. 28 soft rubber catheter was introduced into the trachea and air was blown into the lungs. Compression of the heart over the third, fourth, and fifth left costal cartilages was undertaken at the rate of 60 per minute. Brandy and strychnine were injected directly into the heart, the legs were firmly bandaged, the abdomen was compressed, and hot blankets were applied. While these means were being applied feeble pulsation of the radial and femoral arteries could be felt but they stopped when the compression was stopped. At the end of two hours a pint of saline solution was infused into the median cephalic vein and ten minims of solution of chloride of adrenalin were injected into the pectoral region and repeated without effect. Later tracheotomy was performed and air was blown into the lungs. The efforts were continued for four and a half hours without any success until rigor mortis was established.

31. Gray (THE LANCET, August 19th, 1905, p. 506).—A female, aged 55 years. Laryngeal obstruction from cancer and dyspnœa for three months. Sudden asphyxia came on and tracheotomy was immediately performed, as well as artificial respiration, by which a few spontaneous respirations were taken which soon ceased. After four or five minutes the abdomen was opened in the middle line above the umbilicus and the heart was compressed through the intervening diaphragm at the rate of from 70 to 90 compressions per minute. At the end of four minutes the heart began to beat, slowly at first but gradually increasing in rate and strength until 90 beats per minute were registered. Artificial respiration was still continued and gradually natural breathing was restored. The wound was dressed but the patient died three hours later, having never regained consciousness.

32. Sencert, April 17th, 1905 (*Réunion Biologique de Nancy*, 1905).—A man, aged 51 years. Gall stones. Very cachectic and wasted. Chloroform anæsthesia was induced. During the operation the patient struggled and immediately the respiration and the pulse stopped. Artificial respiration, tongue traction, flagellation, and the injection of ether were tried without success for seven or eight minutes. Then the right hand was pushed up through the abdominal wound and passed up to the diaphragm; the heart was easily seized at its apex between the fingers and thumb and was rhythmically compressed. After five minutes it hardened and soon contracted spontaneously and two minutes later the first spontaneous respiration took place. The abdominal wound was closed. The patient recovered consciousness and made a good recovery.

33. Depage (*Journal de Chirurgie et Annales de la Société Belge de Chirurgie*, 1905, p. 238).—A woman, aged 44 years. Abdominal hysterectomy for fibroid. The patient had mitral disease. Chloroform was administered and at the end of 20 minutes syncope had occurred. Artificial respiration and tongue traction were tried for 15 minutes without success and then heart massage was done by the subdiaphragmatic route. The heart beat was restored after a few instants; it was feeble at first but soon became stronger. Spontaneous respiration did not return until one hour had elapsed. The patient did not recover consciousness and died at the end of 16 hours.

34. Lenormant, August 16th, 1905 (*Revue de Chirurgie*, March 10th, 1906).—A man, aged 18 years. Bullet wound of the heart. Operation under chloroform. The heart was laid bare by resecting the fourth, the fifth, and the sixth left costal cartilages and ribs during which proceedings the pleura was torn. The pericardium was opened and the wound in the heart was sutured. During the manipulations the heart and the respirations suddenly stopped. Rhythmical compression was instituted and tongue traction was commenced. Ether and caffeine were injected. At the end of from six to eight minutes, and ten minutes after the heart had ceased to beat, a slight contraction was felt followed by others, which gradually got stronger and persisted, artificial respiration and tongue traction were continued and three-quarters of an hour after the syncope came on spontaneous respiration was also re-established. Half an hour later the breathing became difficult, the limbs contracted, the temperature rose, and the patient died five hours after his resuscitation had been commenced. Post mortem it was found that the bullet had also pierced the diaphragm, the stomach, the left lobe of the liver, and a loop of the small intestine.

35. Conkling (*New York and Philadelphia Medical Journal*, Sept. 2nd, 1905).—A male, suffering from a severe wound of the chest caused by a razor and extending from the outer third of the left clavicle to a point four inches below the right nipple and involving the second, the third, and the fourth left ribs. Preliminary injections of 20 ounces of saline solution as well as strychnine and nitro-glycerine were given and the wound was repaired under partial ether narcosis. Near the end of the operation the heart suddenly stopped. Artificial respiration and the subcutaneous injection of cardiac stimulants were of no avail and after two minutes the thumb and index finger were passed through the wound to grasp the heart. Compression was made for from 40 to 60 seconds when a slight thrill was felt and the pulse was gradually re-established. Stimulants and saline solution were administered and the patient made an uneventful recovery.

36. Smith and Daglish, October, 1905 (*British Medical Journal*, November, 1905, p. 1340).—A man, aged 63 years. Cancer of the rectum. Examination under chloroform. During the examination the pulse and respiration stopped. Artificial respiration was commenced and strychnine was injected, but after being tried for three minutes without effect the abdomen was opened and the flaccid heart was gently kneaded through the lax diaphragm. In 60 seconds it was again beating feebly but fairly regularly. A few seconds later voluntary respiration commenced. The patient made a good recovery.

37. Keetley (*vide ante*).

38 and 39. Green (*vide ante*).

40. Ramsay (*Intercolonial Medical Journal of Australasia*, September, 1906).—A woman, aged 27 years. Operation for prolapse of the uterus, &c. Anæsthesia by chloroform and ether. Five minutes after the anæsthetic was stopped vomiting occurred and the pulse failed. Artificial respiration was commenced immediately. At the end of four minutes respiration also ceased and heart massage was immediately commenced by the subdiaphragmatic route. Pulsation returned within a minute, at first feebly, then becoming stronger, and spontaneous breathing soon followed. Three and a half pints of normal saline solution were poured into the abdominal cavity and the wound in its walls was closed. Three hours later the pulse was 168 per minute, irregular, and intermittent. The temperature was 101·6° F. and the respirations were 28. The patient slept for four hours and was at times delirious. On the next day she was better. She made a good recovery.

Clifton.

LARGE ARTERIO-VENOUS ANEURYSM OF THE NECK TREATED BY EXCISION.[1]

BY JAMES BERRY, B.S. LOND., F.R.C.S. ENG.,

SENIOR SURGEON TO, AND LECTURER ON SURGERY AT, THE ROYAL FREE HOSPITAL, ETC.

THE patient a female, aged 39 years, was sent to me in March by Mr. Charles J. Heath on account of a large pulsating tumour of the neck. 20 years ago the patient first noticed a small swelling of the size of a filbert at the lower part of the right side of the neck. This gradually and very slowly increased in size but caused no serious inconvenience until the beginning of August, 1905, when she received a sharp blow upon it from a hard sweet that was accidentally thrown at her during a school treat. From that time the swelling rapidly increased in size and began to give great trouble, chiefly dyspnœa, palpitation, pain in the neck, side of the head and arm, and throbbing and noise in the tumour. Latterly her voice had become somewhat hoarse. On March 7th, 1906, she was admitted to the Royal Free Hospital and after spending ten days in a medical ward under the care of Dr. Raymond H. P. Crawfurd she was transferred on March 17th to my care.

[1] A paper read before the Medical Society of London on Nov. 26th, 1906.

Condition on admission.—The patient was a fairly healthy-looking, well-nourished woman with some dilatation of the capillaries of the face. On the right side of the neck, occupying most of the anterior triangle and some of the posterior, was a prominent irregular swelling rather larger than a man's fist (Fig. 1). It extended laterally from a point half an inch to the left of the middle line to the middle of the right clavicle. The lower part of the tumour was below and behind the upper border of the sternum and clavicle; its lower border could not therefore be defined. Upwards, the main swelling extended as high as the upper border of the thyroid cartilage. A deep conical prolongation

FIG. 1.

Arterio-venous aneurysm. Before operation. Front view.

of the tumour extended much higher upwards along the line of the carotid vessels as far as, and beyond, the angle of the jaw, in the neighbourhood of which it faded away. The tumour lay beneath the right sterno-mastoid which was displaced forwards and outwards and formed a constriction over the tumour dividing it into two unequal portions, a prominent anterior portion and a much smaller, less prominent portion in the posterior triangle. Two outlying portions of tumour lay at the upper part of the posterior triangle and in front of the inner end of the right clavicle (Fig. 2). These were rounded,

FIG. 2.

Before operation. Side view. Note especially swelling in posterior triangle and over right clavicle.

smooth lumps as large as marbles, pulsating strongly. The whole tumour was soft and was compressible with a moderate amount of force. There was a powerful expansile pulsation everywhere. Firm, steady pressure upon the tumour itself caused it to disappear almost completely. The swelling diminished to a certain extent when the patient lay down. A loud, harsh, systolic murmur could be heard all over the tumour and there was also a well-marked thrill on palpation. The skin of the neck was quite normal. The carotid vessels could not be felt on the right side of the neck as they were completely covered by, or buried in, the tumour. The trachea was displaced somewhat to the left and there was slight stridor when the patient coughed or breathed deeply.

The diagnosis of an arterio-venous aneurysm presented no difficulty, although the exact point of communication between the arteries and veins could not be determined. It seemed clear that most if not all of the deep veins in both the anterior and the posterior triangle were affected. How far the aneurysm extended into the thorax could not be ascertained. As the tumour was growing rather rapidly and causing much trouble, and the patient's general health was good, it was decided to attempt the removal of the tumour.

FIG. 3.

Shortly after operation. Front view.

Operation.—Chloroform was administered by Dr. Alfred G. Levy and an incision some five inches in length was made along the anterior border of the right sterno-mastoid down to the sternum. A second incision, four inches long, was then carried from the lower end of the first horizontally outwards along the clavicle. As these incisions were gradually deepened the sterno-mastoid muscle was cut completely across about half an inch from its sternal and clavicular attachments. The large musculo-cutaneous flap thus formed was dissected upwards and outwards, giving a good exposure of the deeper parts of the anterior and posterior triangles of the neck. A

FIG. 4.

Shortly after operation. Side view.

long and tedious dissection ensued. The greatest care was taken to keep well outside the tumour and to tie or clamp every vessel before it was cut. The inner and lower part of the tumour having been cleared and lifted up, the greatly dilated internal jugular vein was seen to be lying under, and internal to, the tumour. Some veins connecting it with the tumour were tied but the main trunk was not interfered with. The common carotid artery was also exposed but was found not to communicate directly with the tumour; it was not tied. Below, a huge vein more than one inch in diameter ran directly from the tumour downwards

behind the clavicle into the thorax. This was pulled upwards as much as possible, tied in two places, and then cut. At the upper and anterior part of the wound the superior thyroid, lingual, and facial arteries were tied near their origins and about one and a half inches of the external carotid, which was closely connected with the tumour, were excised with it after ligature above and below. These were the only arteries of appreciable size that required ligature. In the posterior triangle a large number of dilated and pulsating veins were divided after clamping and ligature. Care was of course taken to avoid wounding such important structures as the phrenic, superior laryngeal, and spinal accessory nerves, all of which were necessarily exposed during the course of the dissection. Scarcely any blood was lost during the long and tedious dissection, which lasted no less than two and a half hours. It was obvious that if success was to be attained in such an operation it was essential that the operator should be able to see exactly what he was doing at every stage of the proceeding. This could be done only by keeping the wound scrupulously free from blood. Throughout the operation plain sterile gauze swabs and sterile salt solution were used. The field of operation was, of course, kept covered up with layers of gauze so far as possible, just as in an ordinary removal of a large goitre, or other tumour of the neck. The divided sterno-mastoid was replaced and sutured. Two drainage tubes were inserted, one at the anterior angle of the wound and one through a separate opening in the skin of the posterior triangle.

The tumour was composed of a mass of tortuous, dilated, and distended veins, most of which were of the size of a little finger. Some were much larger and one was at least as large as a bantam's egg. A careful dissection failed to reveal the exact point of communication between the arterial and venous system although it was clearly somewhere near the origin of the external carotid artery, at the only place where arterial trunks were intimately connected with the main mass of the tumour.

The subsequent progress of the case was uneventful. The drainage tubes were removed on the first and second days respectively after the operation. As the result of vomiting after the operation some blood collected at the lower part of the wound but this was satisfactorily absorbed by the end of a fortnight. The highest temperature recorded was 100·4° F. on the third day after the operation. The whole wound healed aseptically (Figs. 3 and 4) and the patient returned to her home in the country five weeks after the operation quite well in all respects. The patient was seen again on Nov. 26th and was found to be in excellent health. The sterno-mastoid muscle was found to be acting normally.

The chief interest of the case lies, I think, in its rarity. I have not been able to find a record of any precisely similar case. The tumour in its present form of a museum specimen is shrunken, empty, and flaccid, and represents but imperfectly the great pulsating, throbbing mass that was seen at the operation. It was composed practically of all the deep and most of the superficial veins of one side of the neck with the exception of the internal jugular vein. As there was no aneurysmal sac between the artery and veins the tumour belongs to the variety of arterio-venous aneurysm known as aneurysmal varix, consisting of a mass of dilated and tortuous veins with inherent arterial pulsation.

The very strong resemblance between this case and the much more common ones of so-called cirsoid aneurysm of the scalp and face raises the interesting question whether these latter tumours really consist of dilated and tortuous arteries as is commonly supposed. Personally I am inclined to agree with those who believe that cirsoid aneurysms really consist of dilated and tortuous veins rather than arteries. It is well known that cirsoid aneurysm of the scalp commonly develops after an injury. It seems reasonable to believe that an injury involving both artery and vein would readily allow arterial pressure to be transmitted to the interior of the vein. The increased pressure would naturally cause distension of the thin-walled veins and a tumour composed of dilated and tortuous veins would be formed, just as in the case I have recorded. It has always been difficult for me to accept the common statement that a cirsoid aneurysm is composed of a mass of dilated and tortuous arteries. The point seems to me to be well worthy of discussion.

Wimpole-street, W.

NOTE ON THREE INTERESTING HEART CASES.

BY R. G. WHITE, M.A., B.Sc., M.B. GLASG.,
PATHOLOGIST, GLASGOW DISTRICT ASYLUM, WOODILEE, LENZIE, N.B.

THE first case was one of marked tricuspid stenosis. As is usual in such cases, the other orifices, with the exception, however, of the pulmonary, were likewise affected. The case was very similar to one reported by Middleton in his "Clinical Records" for 1894. The heart was large and heavy, weighing 14 ounces before removal of clot. The aortic valves had formed a rigid cartilaginous diaphragm with the exception of a very narrow slit and the valves had completely coalesced. The pulmonic orifice was normal and the valves were healthy. Both mitral and tricuspid valves were greatly thickened and their curtains coalesced. The tricuspid barely admitted the tip of one finger, while the mitral orifice was represented only by a narrow chink. Both auricles were markedly dilated; from the right an ante-mortem clot weighing two ounces was removed. The left ventricular wall was markedly thickened. The patient, aged 40 years, had been an inmate of Glasgow District Asylum for two years. His mental condition was one of mild dementia. Before death the presystolic thrill became most marked but the murmurs were quite incapable of analysis. The liver was slightly enlarged; lividity and orthopnœa were marked; there was only slight œdema on the dorsum of the feet. There was a distinct rheumatic history.

The second case was one of rupture of the heart. The pericardial sac was distended and when opened into the heart was found encased in a recent clot. This clot was readily removed and weighed 8 ounces. The pericardial sac contained about 10 ounces of sanguineous fluid. The heart was soft and fatty and weighed 12 ounces. The ventricles were both slightly dilated; also the tricuspid orifice. On the posterior surface of the left ventricle and about midway between the apex and base there was a small rupture, measuring about a quarter of an inch in length and the same in depth. This was in the line of the descending branch of the left coronary artery but had no communication with the ventricle itself. The edges of the rupture were ragged and its walls were made up of disintegrated heart substance. The section (Fig. 1) shows two such areas, only

FIG. 1.

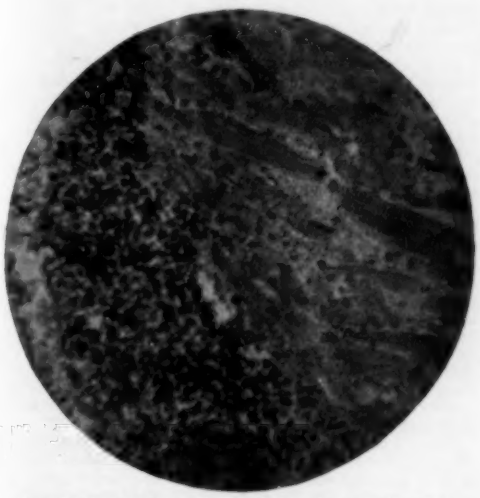
Reproduction of a photograph of a section of the heart (Case 2) showing two softened areas. One has been partially removed for microscopical purposes.

one of which had ruptured on to the surface. The condition is apparently that described by Ziegler as myomalacia cordis. Under the microscope the condition is in every way similar to that described by Coats (Fig. 2). The muscular fibres are found to be broken up, their transverse striæ are disappearing, and the fibres have a hyaline appearance. The coronaries were markedly atheromatous and the aorta showed scattered atheromatous patches. The condition was, no doubt, due primarily to thrombosis in the descending branch of the left coronary artery. There was nothing of the nature of angina in the clinical report. The patient's mental state

was one of dementia. He had been to his work as usual but was taken suddenly ill at night and died within an hour.

The third case is one of chronic aneurysm due to fibroid change. The pericardial fluid was found normal in amount. Near the apex of the left ventricle and on its anterior aspect there was a thin, indrawn area of about one and a half inches in diameter. When the organ was compressed

FIG. 2.



Reproduction of a photomicrograph of a section from the edge of the softened area (Case 2) showing infiltration of blood and degeneration of the muscle substance.

laterally this was seen to bulge out in the form of an aneurysmal dilatation. On section of a portion of the wall it was seen to be composed mainly of dense fibrous tissue. The heart was large and flabby and weighed 18 ounces. Both ventricles were markedly dilated, especially the left. The mitral and tricuspid valves were incompetent. The aorta showed well-marked atheromatous change, especially round the orifices of the coronaries. Both here and along their course the coronary vessels showed marked calcareous infiltration. There was no history of anginal attacks. The mental condition of the patient was one of recurring hypochondriacal melancholia. He was taken ill while undressing for bed and died suddenly.

In conclusion, I have to express my indebtedness to Dr H. C. Marr for his assistance and permission to publish these cases.

Lenzie, near Glasgow.

THE TREATMENT OF OVARIAN PROLAPSE BY SHORTENING THE OVARIAN LIGAMENT.[1]

BY VICTOR BONNEY, M.S., M.D., B.Sc. LOND., F.R.C.S. ENG., M.R.C.P. LOND.,

LECTURER ON PRACTICAL OBSTETRICS AT THE MIDDLESEX HOSPITAL; SURGEON TO OUT-PATIENTS, CHELSEA HOSPITAL FOR WOMEN.

THE surgical treatment of ovarian prolapse has received little attention in comparison with that accorded to other pathological conditions affecting the female generative organs. In this paper I venture to outline the several aspects from which I think this subject may best be considered and more particularly to bring before the Fellows of this society the operative procedure which I have for some time past adopted in these cases.

Clinically, the cases of ovarian prolapse may be divided into three distinct groups, each of which I shall consider separately. These groups are as follows: (1) primary ovarian prolapse uncomplicated with retroversion of the uterus or disease of the appendage; (2) ovarian prolapse either secondary to, or coincident with, retroversion of the uterus; and (3) ovarian prolapse caused by, or complicated with, disease of the ovary or tube to which fixed retroversion of the uterus may or may not be added.

1. *Primary ovarian prolapse uncomplicated by retroversion or disease of the appendage.*—This class of case is a small one and is usually met with in parous women of a relaxed habit of tissue. The prolapsed condition of the ovaries is most probably the result of non-involution of the elongated ovarian ligament and is frequently associated with a flaccid condition of the anterior abdominal wall and a degree of enteroptosis. The patients are usually in poor health, anæmic, and thin. Occasionally, however, the same condition of ovarian prolapse is found in nulliparous girls. The leading symptom in the married women who make up the bulk of this class is dyspareunia of an "internal" type. These patients have to be questioned on this head as they rarely volunteer the statement, although their marital infelicity is the principal trouble which has caused them to seek advice. Besides this there is invariably a complaint of chronic ovarian pain of a "dragging" character but little relieved by posture and accentuated at the menstrual epoch to such a degree as to constitute a true ovarian dysmenorrhœa. That such pain should be present is not surprising. As I have pointed out elsewhere[2] nature has evolved in the case of all the pedunculated organs some special device to prevent them dragging upon their neurovascular pedicle. Thus the liver is suspended by the coronary ligament, the spleen by the sustentaculum lienis and phrenico-colic fold, the kidneys by the perinephric fascia, and the testicles by the coverings of the cord and the cremaster muscle. The ovary is no exception to this rule. Examination of the healthy organ in the course of abdominal section shows us that it is slung between the ovarian ligament on the inner or uterine side, and the ovarico-pelvic ligament on the outer or pelvic side. Both these structures present as tense whitish coloured ridges under the peritoneum of the back of the broad ligament. The tissues constituting the hilum of the ovary are on the contrary markedly lax and soft, being protected from tension by the two ligaments I have described. Abnormal elongation of these two ligaments results in the weight of the ovary being sustained by the soft tissues of the hilum, and as these are richly supplied with vessels and nerves the occurrence of more or less pain is to be expected.

FIG. 1.

Passing the gathering stitch through the back of the uterus close to the origin of the ovarian ligament. The uterus has been lifted out of the wound.

Operations designed to increase the value of the ovarian suspensory apparatus might be applied to either the ovarico-pelvic ligament or the ovarian ligament. I consider that the latter is the best suited for such procedures, because it is impossible in the case of the outer ligament to obtain a sufficiently dense and unyielding tissue to act as a *point*

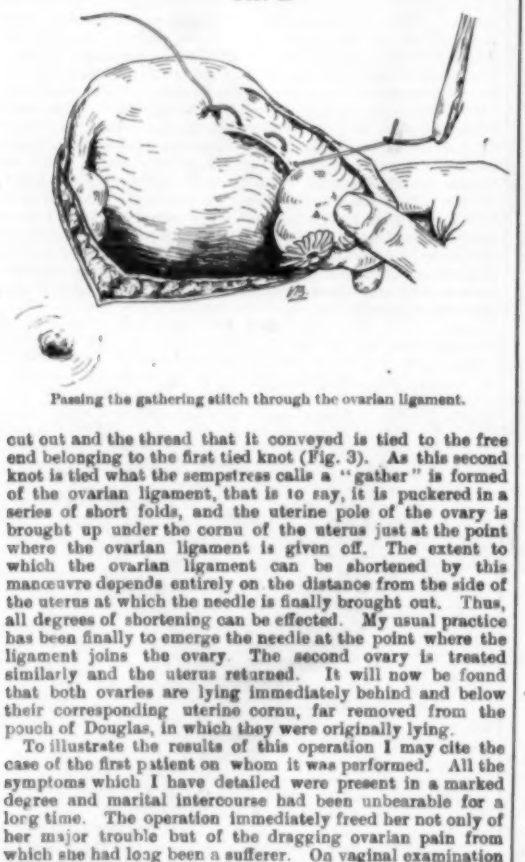
[1] A paper read before the Obstetrical Society of London on Dec. 5th, 1906.

[2] Edinburgh Medical Journal, 1902, and Clinical Journal, 1905.

d'appui from which to begin the process of shortening. Moreover, the close proximity of the ovarian vessels renders them liable to be pricked or constricted in such an undertaking.

The operation which I have adopted in these cases is as follows. The uterus having been pulled up out of the wound, the ovary on one side is drawn up after it and held outwards from the side of the uterus, so as to put the ovarian ligament on the stretch. A fine curved needle, threaded with No. 1 silk, such as is ordinarily used for intestinal anastomosis, is now entered horizontally through the back of the uterus about one-third of an inch within the point where the ovarian ligament is attached (Fig. 1). The needle is made to include the peritoneum and a small thickness of the musculature and is brought out again just within the point of attachment of the ovarian ligament. The thread is now tied, leaving the free end long. The needle, still threaded, is now entered on the upper surface of the ovarian ligament about one-eighth of an inch from its free edge and brought out a similar distance from this edge on its under surface. The point is now carried outwards along the under surface of the ligament, is then made to transfix it from its lower to its upper surface, and the thread pulled through. This is repeated two or three times until a "gathering" stitch has been run along the whole length of the ligament (Fig. 2). The needle is now

FIG. 2.



Passing the gathering stitch through the ovarian ligament.

cut out and the thread that it conveyed is tied to the free end belonging to the first tied knot (Fig. 3). As this second knot is tied what the sempstress calls a "gather" is formed of the ovarian ligament, that is to say, it is puckered in a series of short folds, and the uterine pole of the ovary is brought up under the cornu of the uterus just at the point where the ovarian ligament is given off. The extent to which the ovarian ligament can be shortened by this manœuvre depends entirely on the distance from the side of the uterus at which the needle is finally brought out. Thus, all degrees of shortening can be effected. My usual practice has been finally to emerge the needle at the point where the ligament joins the ovary. The second ovary is treated similarly and the uterus returned. It will now be found that both ovaries are lying immediately behind and below their corresponding uterine cornu, far removed from the pouch of Douglas, in which they were originally lying.

To illustrate the results of this operation I may cite the case of the first patient on whom it was performed. All the symptoms which I have detailed were present in a marked degree and marital intercourse had been unbearable for a long time. The operation immediately freed her not only of her major trouble but of the dragging ovarian pain from which she had long been a sufferer. On vaginal examination it is impossible to detect any abnormality and there is a complete freedom from tenderness, whereas previously this form of examination had occasioned her much pain.

2. *Ovarian prolapse secondary to, or coincident with, movable retroversion of the uterus.*—This form of ovarian prolapse is much commoner than the last-named group, because a certain amount of ovarian descent must of necessity follow retroversion of the uterus. The symptoms associated with backward displacement of the uterus probably very largely depend upon the consequent prolapse of the ovaries. Thus we noticed that whilst the retroplaced body of the uterus is usually quite insensitive, much pain is evoked on pressure over the appendages, and the patient suffers from the same symptoms as those already detailed under Group 1. These cases can be divided into those in which reposition of the uterus restores the ovaries to their normal position and those in which, in spite of such reposition, the ovaries, on account of permanent elongation of their suspensory apparatus, remain behind and below the uterus. The first type can be suitably treated by pessaries, whilst the second cannot, and some form of operative interference is necessitated.

It is not within the scope of this paper to discuss the various methods of operatively treating retroversion of the uterus, but I wish to emphasise this point, that where abnormal laxity of the ovarian suspensory apparatus co-exists with retroversion, operations designed to bring the uterus forwards must be considered as incomplete unless some means are taken at the same time to procure increased support for the ovary. I am of opinion that the operations of ventrofixation and suspension frequently make worse the ovarian pain suffered by the patients because they elevate ovaries already deficient in normal ligamentous support from off the peritoneal floor on which they were lying and leave them hanging freely suspended in the peritoneal cavity. Even in those cases in which the ovarian ligaments are not elongated I am of opinion that similar means should be taken to increase their sustentative value when performing ventrofixation or suspension, for I notice that these operations lift the ovaries into an abnormal position above the ovarian fossæ and leave them exposed to the force of gravity, which, I believe, will sooner or later result in permanent elongation of the ovarian supports.

I have had the opportunity of studying the after-histories of a considerable number of cases of ventrofixation and many of these patients suffer more or less from ovarian pain. Still more distressing are those in which after ventrofixation or suspension has been performed the ovaries remained prolapsed behind the uterus. For this reason it is my practice to combine the operation of shortening the ovarian ligaments with that of ventrofixation in all cases of retroversion that require operation.

FIG. 3.

Shortening the ovarian ligament.

The results of this operation have up to now been so good that I am encouraged to treat similar cases on the same lines in the future.

3. *Ovarian prolapse caused by, or complicated with, chronic disease of the ovary or tube to which fixed retroversion may or may not be added.*—In this, the third and last group, the prolapse of the ovaries is secondary to, or associated with, pathological changes in the tube, the ovary itself, or both together. The distension or thickening of the tube in salpingitis leads to a typical curl-like deformity which

embraces the ovary in its concavity and not infrequently carries it down with it towards the peritoneal floor of the pelvis. The ovary surrounded by peritoneal adhesions and superficially at least inflamed becomes sooner or later the seat of follicular cyst formation and the increased weight accentuates the prolapse. Fixed retroversion frequently complicates these conditions and the cases constitute the ordinary "diseased appendages" so commonly met with.

It is not my purpose to discuss fully the possible methods of treatment which may be applied for the cure of the diseased appendage but I take it that there can be no doubt that the operation of salpingo-oöphorectomy is of all treatments the one we should most seek to avoid. The removal of both ovaries in a young woman is a disaster second only to the disease for which they were necessarily removed. For this reason I would advocate most strongly early operation in cases of salpingitis, because when patients are dealt with in this stage the removal of the tubes alone can be easily effected, whilst later so dense are the adhesions and so disorganised are the ovaries that the removal of the whole appendage is often forced upon the surgeon. Where the ovaries are much diseased I still am strongly in favour of conservative measures whenever they can be effected, even at the risk of incurring a second operation. When ovaries have been conserved after removal of the tubes I look upon it as very important that we should prevent the return of these organs to the diseased peritoneal bed from which they have been separated. Re-adhesion will certainly result in the maintenance of the diseased conditions under which the ovary has been existing and cystic disorganisation is to be expected. Moreover, the peritoneal adhesions tend to draw the conserved organs downwards, so that dyspareunia, chronic ovarian pain, and difficulty with defæcation are likely to be the sole outcome of our conservative measures.

There is another point to which I would venture to draw attention—namely, the tendency of the uterus to become retroverted after operations for diseased appendages. This, I believe, is principally caused by the backward traction of peritoneal adhesions, but may also be due to the atrophy of the upper part of the broad ligaments that follows bilateral salpingo-oöphorectomy. However produced, the condition is a distressing one, the patient suffering from marital trouble, rectal and vesical symptoms, and chronic pelvic pain. Moreover, no surgeon is anxious to re-operate on these cases, knowing that in many of them the peritoneal shrinkage and adhesions preclude the possibility of successful ventrofixation or suspension.

It is from the above considerations that I have arrived at my present operative treatment in cases of chronic diseased appendages. Having freed the appendages, I resect the diseased tubes. The ovaries are then examined, follicular cysts of obviously pathological formation are opened or portions of their walls excised, and the ovaries or portions of ovaries are then brought up under the uterine cornua by the operation I have described to you. The whole is concluded by ventrofixing the uterus by one or two fine silk sutures passing through the fascia and peritoneum of the parietes and picking up a thin film of the uterine musculature at a point on the anterior wall very slightly below the origin of the round ligaments. By these means I believe I secure several important points: (1) the removal of the cause of the disorder—the inflamed tubes; (2) the conservation of the ovaries in a position removed from the diseased area in which therefore they stand the best chance of ultimate recovery; (3) the avoidance of the possibility of post-operative ovarian prolapse; and (4) the avoidance of the possibility of post-operative retroversion.

Devonshire-street, W.

CREMATION AT BIRMINGHAM.—The record of the past year's work of the Birmingham Crematorium shows that, in Birmingham at least, the education of public opinion in the sanitary advantages of cremation is a slow process. The crematorium company's expenses for the year exceeded its income by £118, which was somewhat less than the loss during the previous year, and as the standing expenses of the company only amount to £295 it is obvious that the number of cremations has been very small. A correspondent suggests that the public authorities might take the matter up and utilise the process for the disposal of the bodies of those who are now buried at the public expense, for by so doing they would help to guide public opinion towards the adoption of a useful sanitary measure.

AN OPERATION FOR THE CURE OF PROLAPSUS ANI AND INTERNAL HÆMORRHOIDS.

BY DAVID NEWMAN, M.D. GLASG., F.F.P.S. GLASG.,
SURGEON TO THE GLASGOW ROYAL INFIRMARY.

I SHALL describe very briefly an operation for the cure of internal hæmorrhoids and prolapse of the mucous membrane of the rectum, which I have found to possess several advantages over the operations at present in use.

In protrusion of the bowel beyond the anus, especially in the more advanced and aggravated forms, the immediate effects are very discomforting, in some cases so distressing that relief is eagerly sought by the patient, and the anticipated suffering associated with operations upon the rectum, as at present employed, alone deter the patient from at once seeking surgical intervention. In removal by excision, by the ligature, the clamp, by the écraseur, or by crushing there is not only much suffering following the operation but there is also the risk of sepsis and its consequences. I shall not here consider the slighter varieties of the disease frequently met with in young children as a consequence of local irritation, such as intestinal worms, rectal polypus, phimosis, stone in the bladder, the prolapse which occasionally results from the undue straining induced by bronchitis and whooping-cough, or that consequent to the bad habit of allowing the child to sit for a long time straining at stool without result. These are usually cured by careful medicinal treatment, but when the case has become chronic it is seldom amenable to therapeutic measures. However, in most cases palliative treatment should be tried by careful regulation of the bowels, by systematic and regular employment of astringent injections after movement of the bowels, and by the regular use of cold water enemata in the morning. Should these measures fail to afford relief they will at least place the patient in a more favourable condition for operation.

In health the mucous membrane of the lower and middle third of the rectum is more muscular and somewhat thicker than that lining the colon and sigmoid flexure. It rests upon a loose connective tissue which permits the mucous and muscular coats considerable latitude of movement, and when the rectum is empty the membrane is thrown into longitudinal folds, so that during normal defæcation a certain amount of up and down sliding movement is permitted. When, however, in the presence of certain morbid conditions the ejaculatory functions of the rectum are exaggerated, the connective tissue attachments become lax, and permit the mucous membrane to glide downwards and to protrude beyond the anus, as in some animals it does normally after defæcation. But in men this undue stretching of the submucous connective tissue often is secondary to atony of the muscular structures which support the rectum, and to the absorption of the fat normally deposited in the ischio-rectal fossa.

In prolapse the purpose of my operation is to re-establish by inflammatory adhesions the union between the mucous and muscular coats, and in internal hæmorrhoids to obliterate the distended veins. The production of prolapse is generally gradual and is a consequence of excessive straining induced by chronic constipation, by hæmorrhoids, rectal polypus, enlargement of the prostate, urethral stricture, vesical calculus, or uterine displacement. At first the mucous membrane alone protrudes, but if remedial measures be not adopted the prolonged habit of straining drags down the muscular coat also, so that in extreme cases the whole rectum and part of the colon may be involved in the mass. Between these two extremes we meet with all gradations.

In addition to its employment in cases of internal hæmorrhoids the operation which I am about to describe is applicable only to those cases of prolapse in which the mucous membrane has been freely separated from the muscular tunic and not to those in which the muscular coat is seriously involved in the protrusion. The operations now practised may be divided into two classes—radical measures and conservative methods of treatment. The former include resection as introduced by Treves, Mickulicz, and Weinlechner, while under the latter may be mentioned those introduced by Lange, Verneuil, Marchard, McLeod, Barg, Thiersch, and Kehrer. Most of these

methods have the disadvantage that the highly sensitive structures around the anus are necessarily involved in the operation, and consequently they are attended not only with considerable suffering after the operation but also, on account of the sudden severe shock often associated with operations in the region of the anus, the administration of a general anæsthetic is attended with unusual danger. The difficulty in keeping the wound aseptic in removal by excision, the clamp, the écraseur, or by ligature is a well-recognised risk to life, and in view of this danger many surgeons have shown preference for the cautery rather than the knife. It has been used either to remove the redundant mucous membrane or to induce the formation of inflammatory adhesions between the muscular wall and the mucous membrane. One method is to cauterise the prolapsed mucous membrane while it is outside and afterwards return it within the anus. By so doing the attainment of the main object—namely, the formation of adhesions between the mucous coat, the muscular tunic, and the surrounding parts—is rendered uncertain. Another method is to introduce a duck-bill speculum and while it is in contact with the anterior wall the blade of a thermo-cautery is drawn edgeways along the posterior aspect of the rectum. The speculum is shifted and the anterior and lateral aspects are similarly treated. This method is not only inefficient but is actually dangerous on account of the risk of penetrating the rectal wall. I have found it very unsatisfactory. The cauterisation is patchy. While at some parts the superficial layers of the rectal wall are so acted upon by the heat as even ultimately to slough, at other points the cauterisation is insufficient and the deeper structures are not acted upon uniformly, or over a sufficient area to induce adhesions between the two coats, and while reduction of the calibre of the bowel may be attained it is in many cases in the form of a ring rather than a general and uniform reduction in the lumen of the rectum.

In the method which I am about to describe the prolapse is reduced, and the cautery is used when the mucous membrane is as nearly as possible in its normal relationship to the deeper structures. The heat applied to its surface over a length of four inches not only destroys the epithelial lining, but also scorches the submucous connective tissue and the muscular tunic over corresponding areas to an extent sufficient to cause superficial sloughing of the mucous membrane in longitudinal strips, and excite considerable proliferation of inflammatory material, which ultimately form firm bonds of union not only between the coats of the rectal wall, but also with the structures surrounding it. The contraction in the lumen of the rectum extends over an area fully four inches in length, and the cautery is applied in such a way that there is no danger of stricture resulting at a later date.

The following is the method of procedure. For three days prior to operating the bowels are carefully regulated. The means usually employed are as follows. On the first day teaspoonful doses of castor oil are administered every two hours until the bowels are freely moved. On the second day an enema is given morning and evening, and on the morning of the third day a pill containing the following ingredients is given before breakfast: one-fifth of a grain of resin of podophyllin, one-fifth of a grain of euonymin, one grain of Socotrine aloes, two grains of pill of mercury, and one grain of extract of hyoscyamus. Its administration is followed six or eight hours after by several fluid evacuations containing a considerable quantity of bile. On the following morning, half an hour before the operation, the lower bowel is carefully washed out and a quarter of a grain of morphine suppository is inserted.

The purpose of the operations is to cauterise the mucous membrane of the rectum into six narrow strips from above downwards, each strip being four inches long by a quarter of an inch to one-sixth of an inch broad. This is done through a fenestrated speculum (Fig. 1) six inches long, four inches in circumference, and one and a quarter inches in diameter, with six windows (Fig. 1, A) four inches long and one-sixth of an inch broad. When the speculum is inserted fully the lowermost limits of these windows is half an inch above the anus so that the muco-cutaneous line is protected from the cautery. A general anæsthetic having been administered, the patient is placed in the lithotomy position with the knees well raised and the hæmorrhoids or prolapsed rectum is fully reduced. Then, having explored the passage with the finger, the fenestrated speculum containing the obturator is introduced to its full length; the obturator (Fig. 2) which prevents the mucous membrane from protruding into the lumen of the speculum during the introduction is then withdrawn. When light is reflected by a forehead mirror into the speculum the congested mucous membrane is seen protruding through the six openings in the speculum, the disc (Fig. 3) is then passed into the speculum to close the upper end of it, in order to prevent the mucous membrane at the end of the speculum from being accidentally scorched by the cautery. All the mucous membrane which protrudes through the opening of the speculum is freely cauterised with an iron cautery at a dull-red heat, and, if necessary, the speculum is cooled by allowing a stream of water to play upon its interior for a few seconds between each application of the cautery. When

FIG. 2.

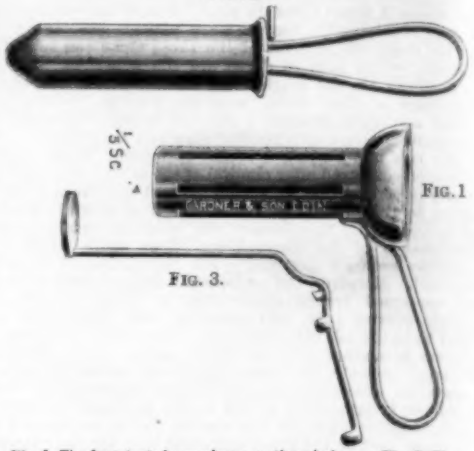


FIG. 1

FIG. 3.

Fig. 1, The fenestrated speculum; A, the windows. Fig. 2, The obturator. Fig. 3, The handled disc.

the operation is completed six narrow strips of cauterised mucous membrane are seen, the surface of which is almost level with the metal of the speculum. The disc is now withdrawn; a half-grain morphine suppository is introduced and the speculum is firmly packed with gauze covered with vaseline, and against the outer end of the gauze the obturator is held, and over it the speculum is withdrawn. The gauze tampon is retained within the rectum, its free end alone showing at the anus. The after-treatment is—small doses of opium by the mouth and very limited diet for a week, so as to give the lower bowel complete rest during that time. The external parts are kept well cleansed, the tampon is retained till it causes uneasiness, and on the seventh day a laxative is given.

I have used this method of treatment in a considerable number of cases, both of advanced prolapse of mucous membrane of the rectum and in severe cases of internal hæmorrhoids, and in both diseases I found it answer admirably. The only matter which requires some experience is the degree to which cauterisation should be carried. I apply the cautery very freely but take care that the metal of the speculum does not become over-heated so as to injure the mucous membrane lying behind the protecting plates. In cases of prolapse the patient should be kept in bed and carefully attended to for three weeks when union will be found to be complete. Three months after operation the parts will appear strictly normal and the sphincter action healthy. In cases of internal piles the patient practically does not suffer any pain after the operation and is able to be out of bed in a few days. I have operated upon several cases which have previously been treated by ligature or by the écraseur, with recurrence, and who could therefore contrast these operations with the one described above. They are all in favour of the latter.

The advantages which I find are the following: 1. The very sensitive area of the anus not being included in the operation, the patient suffers no shock during the operation, and little or no pain after it. 2. The cautery is applied while the mucous membrane and the muscular wall are as nearly as possible in their normal relationship. The adhesions which form are widespread; also, being in the form of longitudinal bands with uninjured mucous membrane between

rather than as transverse rings the danger of subsequent stricture is avoided. 3. The anus being uninjured the sphincter acts normally after the operation. 4. In no case have I found the slightest indications of sepsis (the temperature never rose beyond 100° F.) after the operation; there has been no case of suppression of urine, comparatively little sickness following, and when the bowels were moved for the first time after the cauterisation no great pain was suffered. 5. In no case have I found recurrence of prolapse or of internal hæmorrhoids.

Glasgow.

A CASE OF INTUSSUSCEPTION AND VOLVULUS OCCURRING AT INTERVALS IN THE SAME PATIENT;

WITH OPERATIONS AND RECOVERY.

BY ERNEST E. WARE, M.D., B.S. LOND.,
AND
LEWIS G. GLOVER, M.D., B.C. CANTAB.

THE patient, who was a married woman, aged 27 years, was admitted to the Hampstead General Hospital on July 6th, 1903, suffering from severe abdominal pains. Her family history contained nothing of importance except that one sister had died from volvulus. Until the present illness the patient had always been healthy. She had one child who was now aged two years. The present illness commenced on the morning of July 4th, when she felt tired on waking but was not in pain. At 9.30 A.M. she had severe abdominal pain, causing her to go to bed. This was followed by continuous retching but no actual vomiting. At night the pain became more severe and morphine was given. The bowels acted naturally next day. No blood was noticed in the stools. Later in the day the pain in the abdomen returned with persistent retching. As her condition did not improve she was sent to the hospital at 7.30 P.M. on the 6th.

On admission the patient presented typical abdominal facies. Her tongue was furred and moist. Her pulse-rate was 124 and her temperature was 100·4° F. There was much pain in the lower part of the abdomen, particularly on the right side. At 4 A.M. it was noted that her abdomen was not distended. There was good movement of the upper portion but restricted movement below, particularly on the right side. There was extreme tenderness over the lower part of the abdomen, especially on the right side; an ill-defined mass, dull on percussion and not moving with respiration, was felt. There was no œdema of the skin. The heart and lungs were apparently normal. An enema was given and a small action was obtained. On July 7th a catheter was passed and 15 ounces of urine were withdrawn. The swelling remained much the same. Retching returned with pain. Under A.C.E., administered by Dr. A. H. Cook, Dr. Ware operated, assisted by Dr. Gordon Strange.

In the belief that the condition was probably a large appendicular abscess an oblique incision was made in the right iliac region, but the appendix was found to be normal. On exploring towards the middle line a distended coil of bowel which could not be brought into the wound was felt. A central incision was made about three inches long, terminating one inch from the symphysis pubis. The gut referred to was found to be an intussusception involving the small intestine and extending to a point about two and a half inches from the ileo-cæcal valve; it was about two feet in length. After the abdominal cavity had been packed off an attempt was made at reduction but failed owing to gangrene of the intussusceptum. Clamps were then applied to the healthy gut adjoining the diseased area, and after sectional ligature of the mesentery the whole mass was excised. As much fæcal matter as possible was allowed to escape from the proximal gut, and the clamp being replaced the ends of the bowel were brought together and united by three layers of sutures, one continuous all through, one continuous Lembert's suture, and one separate Lembert's suture. The peritoneal cavity was cleansed by sponging and it was intended to fold over the divided mesentery, but this was found to be impossible owing to the condition of the patient. The abdominal wounds were rapidly closed, gauze drains being used in each. The time occupied by the operation was two hours. After rallying from the shock the patient made an uninterrupted recovery. Her bowels acted naturally on July 9th and after removal of the plugs 48 hours after the operation. The wounds rapidly healed and she was discharged on August 7th, 1903.

She was admitted for the second time in the afternoon of April 13th, 1905, with the following history. Since the previous operation she had continued very well until April 12th, having in the meantime given birth to a child in January, 1905. At noon on April 12th she felt pain in the abdomen and vomited, the bowels having previously been moved earlier in the morning; from then up till the time of admission neither fæces nor flatus was passed. At the time of admission her face had an expression of distress with a malar flush; there were some dyspnœa and cough. Her temperature was 101°, her respirations were 44 per minute, and her pulse-rate was 128. Pain in the lower part of the abdomen was complained of, a small area of greater tenderness being situated over McBurney's point; pain was also referred to the right side of the chest. On examination it was found that the hypogastric and right iliac regions were distended and that the respiratory movements ceased at the umbilicus and were absent from there over the lower abdomen. The percussion note over this region was tympanitic; just above and to the right of the umbilicus it was duller than elsewhere. The rectum was found to be empty. The scars of the former operation were present. No signs of abnormality were found in the chest; the urine was passed without pain and was found to be normal in character. An examination of the blood showed no evident leucocytosis. At 6 P.M. an enema of one and a half pints of gruel with half an ounce of turpentine was administered; 20 minims of tincture of belladonna were also given by the mouth and were retained. At 8 P.M. she felt a little more comfortable and a flatus tube was passed without result.

At 9.30 P.M. the abdomen was opened by Dr. Glover, Dr. E. Collingwood Andrews assisting. The A.C.E. mixture was the anæsthetic employed and was administered by Dr. Cook. On the peritoneum being cut through a coil of gut projected, which was absolutely black in colour and greatly distended; about six ounces of blood-stained offensive fluid escaped from the peritoneal cavity. The loop when followed up was found to consist of small intestine twisted on itself close to the cæcum and quite impossible to be reduced. The loop was accordingly incised and about 16 ounces of dark-coloured, fœtid, blood-stained fluid were drained away from it. It was then easily reduced. The bowel was clamped and divided about two inches above the gangrenous portion and the mesentery, which was much swollen and plum-coloured, and in which the veins were thrombosed, was tied off. The gangrenous portion was then removed, the lower end also being divided between clamps. At this time the patient, in spite of two hypodermic injections, each of $\frac{1}{75}$th of a grain of strychnine, was very collapsed and her pulse was running at 140 per minute. As rapidly as possible a Murphy's button was inserted into the divided ends of the gut and an end-to-end union was accomplished. Five Czerny-Lembert sutures were inserted in addition to the purse-string sutures around the two halves of the button. Nothing further was done beyond closing the wound by interrupted sutures; these were passed through the whole abdominal wall, no attempt being made to suture in layers; a drainage-tube was put down into Douglas's pouch. Dressings were applied and the patient was removed to bed as quickly as possible. The foot of the bed was raised and one pint of normal saline fluid with 15 minims of solution of adrenalin were administered by the rectum. The patient was sick once after the operation and rallied well. The drainage-tube was removed finally on April 22nd and by the 25th the whole wound was healed. She was up for the first time on May 8th.

On April 22nd it was noted that to the right of the lower end of the wound, midway between that point and the superior anterior right iliac spine, a hard knob could be felt "on palpation—probably the button." On the 25th this mass had moved outwards and was felt more deeply in the iliac fossa, the wound at this time being all but healed. On the 29th there was still something to be felt at this point but very indistinctly. On the tenth day after the operation the patient complained of severe pain in the rectum while going to stool and it is surmised that at this time the button was passed. Through an unfortunate oversight it was never found in the fæces, but an x ray photograph taken before her discharge from the hospital on May 26th failed to show any trace of a metallic structure in any part of the abdomen.

During the first week after the operation the temperature kept up to 100° but it then came down to normal and thereafter only reached 99·6°, the highest point, once in the six weeks of the patient's stay in the hospital. She has continued well ever since the operation.

For the notes of the cases we are indebted to the resident medical officers, Dr. H. W. Sinclair and Dr. J. A. Anderson.

FURTHER OBSERVATIONS ON THE INFLUENCE OF CALCIUM CHLORIDE ON THE AGGLUTINATION OF VIBRIOS.

BY M. CRENDIROPOULO

AND

CORNELIA B. SHELDON AMOS, M.B. LOND.

(From the Port View Laboratory, Alexandria.)

IN a previous paper on the influence of various salts on the agglutination of vibrios we showed that chloride of calcium greatly favoured this phenomenon; but the number of vibrios examined by us was too small to warrant the conclusion that this was a general rule. We thought it advisable, therefore, to repeat these experiments on a larger number of vibrios, more especially as we were able to examine six vibrios (El Tor), which, though agglutinated by the so-called cholera serum, yet did not present all the so-called specific characteristics of the cholera vibrios. Moreover, we studied the action of this salt, i.e., calcium chloride, on vibrios not agglutinated by cholera serum in order to see whether the action of the salt was specific for cholera vibrios or not.

Method.—The serum used in our previous experiments became inactive when diluted 100 times with distilled water. Since then, however, we have observed that the amount of serum necessary to produce agglutination in distilled water varied not only according to the strength of the serum, but also according to the agglutinability of the particular microbe at the time the experiment was made. Thus, whereas the vibrio CK was agglutinated as a rule by a 1 in 300 solution of cholera serum in distilled water, a much stronger solution—namely, 1 per cent.—was necessary in order to agglutinate it after it had passed through an animal. Similar variations depending on the age, virulence, mode of culture, &c., of the vibrios can be easily demonstrated. We therefore compared before each experiment for each microbe the agglutinative power of the serum when diluted with distilled water, and when diluted with physiological salt solution. The agglutinating power was always far less in serum diluted with distilled water than in the same serum diluted with physiological salt solution. Table I. illustrates this.

TABLE I.

No.	Vibrios.	Agglutinating strength of cholera serum diluted in physiological salt solution.	Agglutinating strength of cholera serum diluted in distilled water.
1	CK	1 in 1000	1 in 300
2	Berlin 70	1 ,, 1000	1 ,, 300
3	Berlin 76	1 ,, 800	1 ,, 250
4	Aida	1 ,, 1000	1 ,, 300
5	Fatma	1 ,, 1000	1 ,, 300
6	Machaout	1 ,, 1000	1 ,, 300
7	Berlin 115	1 ,, 1000	1 ,, 300
8	141	1 ,, 800	1 ,, 250
9	145	1 ,, 500	1 ,, 200
10	CV	1 ,, 1000	1 ,, 300
11	CVA	1 ,, 1000	1 ,, 300
12	El Tor No. 1	1 ,, 500	1 ,, 200
13	,, ,, 2	1 ,, 500	1 ,, 200
14	,, ,, 3	1 ,, 800	1 ,, 250
15	,, ,, 4	1 ,, 800	1 ,, 250
16	,, ,, 5	1 ,, 500	1 ,, 200
17	,, ,, 6	1 ,, 800	1 ,, 250

Let us, for instance, suppose that the 1 in 1000 solution of serum dissolved in physiological salt solution agglutinated a given vibrio, but that a much stronger solution—namely, a 1 in 300 solution—of the same serum in distilled water was necessary to produce the same effect, then the solution we used with the various salts to be tested was always a weaker one—namely, 1 in 400. The various solutions of calcium chloride were made with pure water distilled, tested with nitrate of silver and barium chloride and diluted 10, 100, 500, 1000, 2000, 5000, 10,000, and 20,000 times. Similar solutions of sodium, potassium, barium, and magnesium chlorides served as controls. The cholera serum was rabbit's serum prepared with cholera vibrio CK. 17 agglutinating vibrios were used, among which were the six El Tor vibrios mentioned above. The following table gives our results.

TABLE II.

No.	Vibrios.	Title of calcium chloride solution. 1 in 20,000	1 in 10,000	1 in 5,000	1 in 2,000	1 in 1,000	1 in 500	1 in 100	1 in 10	Distilled water.
1	CK	+	+	+	+	+	+	+	-	-
2	Berlin 70	+	+	+	+	+	+	+	-	-
3	Berlin 76	+	+	+	+	+	+	+	-	-
4	Aida	+	+	+	+	+	+	+	-	-
5	Fatma	+	+	+	+	+	+	+	-	-
6	Machaout	+	+	+	+	+	+	+	-	-
7	Berlin 115	+	+	+	+	+	+	+	-	-
8	141	+	+	+	+	+	+	+	-	-
9	145	+	+	+	+	+	+	+	-	-
10	CV	+	+	+	+	+	+	+	-	-
11	CVA	+	+	+	+	+	+	+	-	-
12	El Tor No. 1	-	-	-	-	+	+	+	-	-
13	,, ,, 2	-	+	+	+	+	+	+	-	-
14	,, ,, 3	-	-	-	+	+	+	+	-	-
15	,, ,, 4	-	-	-	-	±	+	+	-	-
16	,, ,, 5	-	-	-	-	-	+	+	-	-
17	,, ,, 6	-	-	+	+	+	+	+	-	-

From this table we see that all the vibrios, except the El Tor vibrios, are agglutinated by extremely dilute solutions of calcium chloride in the presence of the serum.

We now selected some vibrios which were agglutinated by cholera serum—viz., 98, 167, 52 (which were isolated from dysenteric stools at El Tor at a time when there was no cholera epidemic) and "Alioglu" (which was isolated from a cholera stool but which does not agglutinate with cholera serum) and investigated the influence of calcium chloride on their respective sera. It was evident that calcium chloride did not favour their agglutination to the same extent that it favoured the agglutination of the cholera vibrios.

TABLE III.

No.	Vibrios.	Serum prepared with each vibrio and diluted in calcium chloride solution. 1 in 20,000	1 in 10,000	1 in 5,000	1 in 2,000	1 in 1,000	1 in 500	1 in 100	1 in 10	Serum in distilled water.
1	98	-	-	+	+	+	+	+	-	-
2	167	-	-	-	+	+	+	+	-	-
3	52	-	-	-	+	+	+	+	-	-
4	Alioglu.	-	-	+	+	+	+	+	-	-

The other chlorides experimented with showed no regular

influence; each vibrio reacted differently, as the following table shows.

TABLE IV.

Vibrios.	Serum diluted in—				
	Calcium chloride.	Potassium chloride.	Sodium chloride.	Barium chloride.	Magnesium chloride.
CK	1 in 20,000	1 in 1,000	1 in 1000	1 in 10,000	1 in 5000
Aida	1 ,, 20,000	1 ,, 2,000	1 ,, 2000	1 ,, 5,000	1 ,, 2000
Fatma ...	1 ,, 20,000	1 ,, 1,000	1 ,, 1000	1 ,, 10,000	1 ,, 5000
El Tor No. 1	1 ,, 1,000	1 ,, 1,000	1 ,, 1000	1 ,, 500	1 ,, 2000
,, ,, 2	1 ,, 10,000	1 ,, 10,000	1 ,, 5000	1 ,, 2,000	1 ,, 2000
,, ,, 3	1 ,, 2,000	1 ,, 5,000	1 ,, 5000	1 ,, 2,000	1 ,, 2000
,, ,, 4	1 ,, 500	1 ,, 500	1 ,, 500	1 ,, 1,000	1 ,, 1000
,, ,, 5	1 ,, 500	1 ,, 1,000	1 ,, 2000	1 ,, 2,000	1 ,, 5000
,, ,, 6	1 ,, 5,000	1 ,, 1,000	1 ,, 1000	1 ,, 2,000	1 ,, 1000
167	1 ,, 2,000	1 ,, 5,000	1 ,, 2000	1 ,, 10,000	1 ,, 2000
98	1 ,, 5,000	1 ,, 5,000	1 ,, 5000	1 ,, 10,000	1 ,, 1000

Conclusions.—1. Chloride of calcium therefore greatly favours the agglutination of the vibrios usually considered to be true cholera vibrios. 2. The agglutination of the six El Tor vibrios, however, is only very slightly favoured by chloride of calcium. These vibrios are agglutinated by cholera serum, but they are hæmolytic and do not fix the immune body of cholera serum.

Alexandria.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

THREE UNUSUAL CASES OF PNEUMONIA.

(Under the care of Professor J. B. BRADBURY.)

CASE 1.—The patient, a boy, aged five years, was admitted into Addenbrooke's Hospital on April 27th, 1905, having the previous night been delirious. He had not vomited and his bowels were relieved on the 26th. He had had no rigor or convulsion. His temperature on admission was 104° F. He was thin and somewhat cyanosed. He lay in bed on his right side with his legs flexed. The pupils were dilated and equal. There was some retraction of the head and the spine was less curved than normally. The nostrils dilated with each respiration. There were sordes on the lips. On the right side behind there was tubular breathing near the inferior angle of the scapula, and friction râles were heard over the whole lung, both anteriorly and posteriorly. Rhonchi were also heard over the left lung both in front and at the back. The urine was of specific gravity 1025; it contained a trace of albumin but no sugar and the chlorides were diminished. Three days after admission there was dulness on percussion over the right lung, back and front, and rhonchi were heard over both lungs. On May 1st, at 6 P.M., the temperature went up to 105·6°, having since admission oscillated between 102° in the morning and 103·6° in the evening. On this day it was noted that there was a rhythmic side-to-side movement of the head, with a frequently repeated cry (meningitic). The pulse was very rapid but its strength was fairly good. He was extremely irritable and resented being moved or touched. The retraction of the head was marked. The physical signs in the lung were unchanged. With an ice-bag and sponging the temperature next morning had fallen to 98·2°, but it rose again in the evening to 103·2° and remained high till the morning of the 6th, after which it rapidly fell and did not rise again after the morning of the 7th. The note on May 12th ran as follows: "Temperature has now been down for five days and the general condition has improved. There is less retraction of the head. Numerous fine crepitations are heard on the left side in front, at the level of the second and third ribs." On the 14th resonance was still impaired and a few crepitations could be heard in the right lung behind. His general condition was improving. The right pupil was larger than the left. On the 20th the breath sounds were louder on the left side. No crepitation was heard. The patient made a good recovery and was discharged on June 6th. His diet for some time was only milk and brandy. The treatment in addition to the ice-bag and cold sponging consisted of aperients, expectorants with digitalis, and chloral hydrate with potassium bromide at bedtime, and during convalescence Easton's syrup and malt and cod-liver oil and the open-air treatment on the balcony.

CASE 2.—The case of this patient, a boy aged two years and nine months, was in almost every respect the counterpart of Case 1. His illness began 11 days before admission with cough and diarrhœa. The medical man called in said that the boy was suffering from bronchitis, pneumonia, and meningitis. He had been delirious. His temperature was 104·4° F., his pulse was 162, and his respirations were 60. The cheeks were flushed. The head was retracted. There was some stertor of breathing. The tonsils and fauces were red and injected. There were scattered râles heard over both lungs, some tubular breathing at the back of the right lung, and dulness over the left. The tongue was furred and the patient had diarrhœa. On May 14th some dulness persisted on the left side. The temperature came down the previous night by crisis. The tonsils were swollen and red. The patient had been fed on milk and lime water and brandy. On the 17th the temperature, which had fallen to 96·4° at 10 A.M., commenced to rise again and on the 18th at 10 P.M. reached 105·2° and kept on a high level till the 24th when it dropped to the normal. On the 20th there were râles on both sides of the chest. Retraction of the head was marked and there was some head rolling. There were convulsive movements of the mouth. There was not so much screaming. On the 22nd respiration was still quick, the pulse was very rapid and small, and breath sounds were tubular on the left side in the anterior axillary line; resonance was impaired in this area. Many scattered crepitations were heard.

From this time to June 1st the temperature oscillated between normal in the mornings and 101·2° in the evenings; when it finally fell and remained either normal or subnormal. The general condition improved; the dulness on percussion disappeared, but the breath sounds continued slightly tubular in character on the left side. The retraction of the head was much less marked. The treatment consisted of occasional aperients—castor-oil or calomel—expectorants, hot sponging, a chlorine spray for the throat, and on and after May 22nd quinine in one-grain doses, three times daily, which seemed to benefit the patient much. At any rate, there was marked improvement after he had commenced to take it. He was discharged well on June 13th.

CASE 3.—This case had not such a happy termination as the others. A single man, aged 25 years, a chauffeur, was admitted to hospital on Sept. 22nd, 1905. He had had a purulent discharge from his nose for years and more recently also from the ear. He got wet through on Sept. 12th and felt unwell afterwards for three or four days. On the 17th he had a rigor and went to bed with a temperature of 101° F. He stayed in bed at home until his admission to the hospital, being feverish all the time. He developed a cough with a little blood-stained expectoration and pain in the upper part of the right side of the chest, which was aggravated by coughing. The bowels acted three times on the day before admission but there was no diarrhœa. He had no pain in the abdomen, no spots, and the spleen was not enlarged. His temperature on admission was 103°, his pulse was 108 and regular, and his respirations were 36. Right lung.—The apex was dull on percussion and the breath sounds were diminished over the upper half. Vocal resonance was somewhat increased and there were a few crepitations to be heard. Left lung.—There were scattered crepitations at the base. There was no dulness anywhere. There was occasional cough; the expectoration was thick and purulent and some was frothy and blood-stained. Heart.—*Nil.* There was a faint cloud of albumin in the urine. On the 28th the temperature was very irregular, varying from 98° to 103°. On the 29th Widal reaction was negative. The patient coughed up a large quantity of thick purulent expectoration. On Oct. 2nd there was a dull area

of the right lung extending baseward. There were crepitations at the base of the right lung. On the 3rd an exploring needle was inserted in the posterior axillary line and serous fluid was withdrawn. There were some streaks of blood in very purulent yellow sputum. On the 4th movement of the right lung was diminished. The breath sounds were diminished all over. Vocal resonance was diminished. There was whispering pectoriloquy in the scapular region. The sputum was less purulent and there was no blood. His general condition was unchanged. His temperature ranged from 100° to 102·5°, his pulse was 104, and his respirations were 36. On the 8th the dulness of the right lung was less. The breath sounds were more audible. Râles and rhonchi were heard all over the lung. In the scapular region there was still a dull area with tubular breathing and increased vocal resonance and vocal fremitus. On the 14th the physical signs were as on the 8th. His general condition was less good. The patient was taken up to the theatre at 9 P.M., anæsthetised with chloroform, and the chest was explored with a needle by Mr G. E. Wherry. The needle was inserted in two places behind and in one place in front of the chest in the area of dulness. In the last case some flakes of purulent material came away with blood, but the indications were not such as to warrant any further operation. After returning to bed the patient coughed up a little blood. On Oct. 16th his general condition was less favourable. The patient occasionally wandered in his mind and was more restless. He had a bad night. Some râles were heard over the left side of the chest in front. Signs on the right side showed little change. On the 17th his general condition was worse. On the 19th he was weaker. The respirations were shallow and more rapid, the pulse was smaller, and the face was cyanosed. He was wandering and had great difficulty in bringing up the sputum. He died early next day. The medicinal treatment consisted of quinine, strychnine, and digitalis, oxygen inhalations, brandy, &c.

Necropsy.—A post-mortem examination was held on Oct. 21st. The patient was short but well built. Thorax.—Right lung: The pleuræ of the upper two-thirds of the lung were adherent to one another but easily separable. The lung was enlarged, weighing 68 ounces, and retained the shape of the chest. The whole of the upper lobe felt firm but nodular; the middle and lower lobes were less firm. On making an incision from the apex to the base of the lung the following condition was found. The upper lobe was riddled with small abscesses, from which poured out a thick greenish-yellow pus. The abscesses varied in size—most being 0·3 centimetre in diameter. The larger ones, very irregular in shape, were due to the fusion of several smaller ones. The smaller abscesses were more numerous and distinct near the surface of the lobe. The connective tissue, the bronchi, and vessels of the lobe were very distinct, and the abscesses were situated in the alveolar tissue between these. The remaining pulmonary tissue was greyish drab and granular in appearance, very similar to grey hepatisation. The upper portion of the middle lobe also contained numerous abscesses. The lower portion was free from abscesses but œdematous. The lower lobe in front was also free, but the upper portion behind contained numerous abscesses. They were less numerous towards the base, but at the posterior inferior angle was a group of small abscesses quite cut off from the others and surrounded by œdematous tissue. The left lung weighed 22½ ounces and was œdematous. The heart weighed 12½ ounces. The pericardial surfaces were united by scattered loose adhesions; these were organised but easily broken. The right ventricular wall was thickened; the left ventricular wall was of normal width. The muscle was deep red and soft. The valves were normal and so also was the aorta. With regard to the abdomen, the peritoneum was normal. The alimentary canal was normal. The liver weighed 83½ ounces; the surface was smooth. On section it was yellowish-brown (?), friable. The spleen was slightly enlarged and soft. The right kidney weighed seven ounces and the left eight ounces; they were smooth, firm, and bluish in colour. The capsule stripped easily. The cortex was of normal width and of granular appearance.

Remarks by Professor BRADBURY.—I have little doubt that the first two cases were the result of pneumococcic infection, and that the throat and lung condition and the meningitis were due to the diplococcus pneumoniæ. It is now generally admitted that lobar pneumonia should be classed with the specific infectious diseases, and not with diseases of the lungs, and that the pneumococcus microbe may be not only the cause of pneumonia but of meningitis, and even of arthritis, pericarditis, &c. In a note on the Distribution of Diplococcus Pneumoniæ in the *Archives of the Middlesex Hospital*, Vol. VI., Dr. Courtould says: "It is becoming increasingly clear with regard to the majority of bacteria that we can no longer limit their injurious functions to the production of one pathological condition, but that they are capable of producing many and varied abnormal conditions." He also writes:—"I have arrived at the following conclusions: 1. That diplococcus pneumoniæ is constantly, or almost constantly, present in the saliva of healthy persons. 2. That under certain conditions (some depressing influences) the organism may at times be pathogenic to animals; but for the most part it is devoid of such harmful properties. 3. That these relatively harmless organisms, though incapable of injuring the healthy tissues of the host, may, with the occurrence of some other prejudicial agency, give origin to numerous pathological conditions, of which the most frequent is pneumonia." These two cases, in my opinion, support Dr. Courtould's conclusions. Professor W. Osler says[1]: "Meningitis is perhaps the most serious complication of pneumonia. It varies very much at different times and in different regions. My Montreal experience is rather exceptional, as 8 per cent. of the fatal cases had this complication. It usually comes on at the height of the fever and in the majority of the cases is not recognised unless, as before mentioned, the base is involved, which is not common. Meningitis may occur later in the disease and is then more easily diagnosed. In some cases it is associated with infective endocarditis. The pneumococcus has been found in the exudate." Again, he writes: "Certain complications and terminations are particularly serious. The meningitis of pneumonia is probably always fatal. In children there are two special sources of error; the disease may be entirely masked by the cerebral symptoms and the case mistaken for one of meningitis." In both my cases the meningitis came on after the lung had been affected and would by the older physicians have been regarded as a complication of the pneumonia, whereas it was part and parcel of the infection by the same bacillus. I am interested to know whether other practitioners in the town about the same period had similar cases in children. It is not always easy in children to distinguish between broncho-pneumonia and lobar pneumonia, but the cases I have brought forward were, in my opinion, instances of the latter.

With regard to the third case, as the temperature remained high and the expectoration was purulent and very profuse, I was doubtful whether I had a case of pneumonia which had gone on to purulent infiltration to deal with or one of interlobar empyema. The physical signs were certainly those of a pneumonia, with softening and abscess formation, and on the whole I was inclined to take this view of the case. I, however, asked my colleague Professor Allbutt to look at the man and he thought it might be an empyema. Hence I asked Mr. Wherry to operate. I believe bacteriologists now regard the diplococcus pneumoniæ as having a close relationship to streptococcus pyogenes, and this bacillus and the pyogenic staphylococci may be associated with the pneumococcus in lobar pneumonia, but perhaps only as secondary invaders. It is not improbable that the purulent discharge from the ear and nose had a causative relationship to the condition of the lung found after death. Professor Osler writes: "A more advanced condition of grey hepatisation is that known as purulent infiltration, in which the lung tissue is softer and bathed with a purulent fluid." "When the purulent infiltration of the lung tissue reaches the grades sometimes seen post mortem, it is probable that resolution could not take place. Small abscess cavities may arise, and by their fusion larger ones. Often in one lung, or even in one lobe, the various stages of the process may be seen and the passage of the engorgement into red hepatisation and of the latter into the grey stage can be readily traced." "Bacteriologically, a large number of different organisms have been found, the specific microbe of the primary disease, usually in association with the streptococcus pyogenes or the staphylococcus; in some instances the colon bacillus has been present." "Termination in abscess. (This occurred in four of my 100 autopsies.) Usually the lung breaks down in limited areas and the abscesses are not large, but they may fuse and involve a considerable portion of a lobe. The condition is recognised by the sputum, which is usually abundant and contains pus and elastic

[1] Principles and Practice of Medicine, fourth edition.

tissue, sometimes cholesterin crystals and hæmatoidin crystals. The cough is often paroxysmal and of great severity; usually the fever is remittent or in protracted cases intermittent in character and there may be pronounced hectic symptoms. When a case is seen for the first time it may be difficult to determine whether it is one of abscess of the lung or a local empyema which has perforated the lung." Sturges and Coupland in their monograph on "Pneumonia," second edition, say that pulmonary abscess "is a most rare event in the after-history of acute pneumonia. It was found in but one case of 144 examined after death."

The children were admitted—having previously been seen by local practitioners—in April and May and the man in September. Neither of the children had a tuberculous family history but it was noted that the mother of the elder suffered from winter cough. Both had had measles and whooping-cough. The elder boy complained of feeling ill on April 20th and the medical man called in told his mother that he had inflammation of the lungs.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Mimicry of Malignant Disease in the Large Intestine.—Traumatic Rupture of the Diaphragm.

A MEETING of this society was held on Dec. 14th, Mr. H. H. CLUTTON, the President, being in the chair.

Mr. B. G. A. MOYNIHAN read a paper entitled "The Mimicry of Malignant Disease in the Large Intestine." He gave detailed records of six cases, in all of which a diagnosis of malignant disease of the large intestine had been made at, or before, the time of operation, yet subsequent examination of the specimens or the after-history of the cases showed that the diagnosis had been incorrect. The first case was that of a female patient, aged 29 years, who was operated upon for intestinal obstruction due to a growth which blocked the rectum. Left inguinal colotomy was performed and six weeks later the whole of the rectum and the sigmoid flexure below the colotomy opening were removed by the abdomino-perineal operation. An examination of the specimen, which was shown, revealed no evidence of malignant disease. The rectal walls were considerably thickened and stenosis had resulted. The mucous surface showed heaped-up irregular masses of soft growth, here and there ulcerated to a degree which resulted in festoons of mucous membrane being left, attached at each end, free in the middle. There were numerous deep pockets in the thick wall of the gut due to ulceration. There was no evidence of tubercle or of syphilis. In Case 2, that of a woman, aged 58 years, there was a large tumour of the sigmoid flexure with perforation and a localised abscess. The patient was operated upon for acute obstruction in 1904. The tumour had disappeared entirely and the patient was quite well. The case was considered to be one of subacute perforation of a false diverticulum of the sigmoid flexure. Case 3, in a woman, aged 50 years, was an example of inflammatory tumour, pericolitis transversa, affecting the left end of the transverse colon. Colectomy was performed for a tumour as large as a cocoanut. Subsequent examination showed only an immense thickening of the outer coats of the intestine, the mucous surface being intact. Case 4, that of a woman, aged 41 years, was similar to Case 1. Case 5 occurred in a man, aged 52 years, who was operated upon for symptoms of duodenal ulcer and who had also suffered for some months from intermittent attacks of acute intestinal obstruction. A large duodenal ulcer was found and when the large intestine, a growth in which had been suspected, was examined a tumour as large as the fist was felt in the sigmoid flexure. This was removed and axial anastomosis performed. The tumour on section showed a large number of false diverticula, one of which had perforated. The walls of the gut were one and a half inches thick; no evidence of malignancy could be discovered. Case 6, in a woman, aged 62 years, was one of inflammatory tumour of the splenic flexure which disappeared entirely after a short-circuiting operation. In drawing attention to these cases Mr. Moynihan remarked that the mimicry of malignant disease by a hyperplastic tuberculous process in the cæcum and ascending colon was well known. He had performed colectomy on two such cases in the belief that he was dealing with cancer. It was, however, not so generally known that inflammatory tumours, presenting all the clinical appearances of cancer, might exist in all parts of the large intestine. Many of these were possibly due to the presence of false diverticula, the origin and complications of which were discussed.—The PRESIDENT believed that some of the cases might be comparable to simple ulcer of the stomach. The condition described in the two rectal cases was formerly regarded as syphilitic polypoid growth in spite of the absence of history of syphilis. But it was evident that "pockets" of the mucous membrane and polypoid mucous growth might arise in other ways.—Dr. CLAUDE WILSON asked what would have happened if these cases had not been operated upon and what was their bearing on the mortality of cancer.—Dr. W. H. B. BROOK referred to the case of a man, aged 65 years, who was seized with symptoms of acute intestinal obstruction due to a fixed tumour of the cæcum which could not at the operation be removed on account of the adhesions. The tumour presented all the appearances of malignant disease, but the patient completely recovered and the tumour disappeared.—Mr. W. G. SPENCER thought it was possible that many of these cases had formerly been regarded as syphilitic in origin and referred to an instance which had occurred in a woman who was seized with acute intestinal obstruction.

Mr. J. PAUL ROUGHTON read the notes of a case of Rupture of the Diaphragm. A man, aged 49 years, a railway shunter, was admitted into the Kettering General Hospital at 5 P.M. on Oct. 27th, having been squeezed between buffers. Examination revealed no lesion of importance but the patient complained of pain in the back and præcordium. The respiratory movements on the left side were impaired; the cardiac dulness was absent and the left side of the chest was hyper-resonant. The lower abdomen moved only feebly with respiration. Upon opening the abdomen at 10 A.M. on Oct. 28th the patient was in a very grave condition. The stomach, which had risen high into the chest, was pulled down and the wound in the diaphragm was stitched. Blood passed from the chest into the abdomen upon drawing down the stomach. The patient was somewhat relieved but he died on the 29th at 1 A.M. At the post-mortem examination the spleen was found in the chest and the diaphragm was found to be torn away from its attachment between the ensiform cartilage and the ninth rib, thus forming simply a shelf between the chest and the abdomen. The points to be noted specially were (1) the unequivocal nature of the signs of rupture; and (2) the absence of serious symptoms at first which made the case an apparently favourable one for operation.

Mr. JAMES BERRY communicated a case of Rupture of the Diaphragm, with Hernia of the Viscera through the Rent. A railway shunter, aged 19 years, was admitted to the Royal Free Hospital on Nov. 11th, 1898, having been squeezed between buffers shortly before admission. He was greatly collapsed and there were physical signs of rupture of the left lung with much effusion of blood and air into the left pleura. It was believed from the nature of the injury that the diaphragm also had been injured. During the next three days he remained in much the same bad condition; the heart became more and more displaced to the right, the pneumo-hæmothorax increased, and he vomited occasionally. The circumference of the abdomen, which measured 28½ inches on admission, gradually diminished to 24½. On the evening of Nov. 15th the vomiting became much more frequent and violent; the vomit was of a coffee-ground colour, and evidently contained much altered blood. The diagnosis of a diaphragmatic hernia of the stomach, which had previously been suspected, now seemed to be almost certain, and as symptoms pointed to strangulation, it was decided that, desperate as was the man's condition, an attempt ought to be made to reduce the strangulation. When the abdomen was opened a large rent in the left posterior part of the diaphragm was discovered. Through this most of the stomach and transverse colon, all the great omentum, one half of the spleen (which had been cut in two), and the upper end of the left kidney had passed into the thorax. The herniated viscera were grasped moderately firmly by the edges of the opening in the diaphragm and were drawn back into the abdomen with some little difficulty. The rent in the abdomen was closed, partly with sutures and partly by fixing the left lobe of the liver so as to block up the posterior part of the opening, which could not be sutured. The operation lasted half an

hour and the patient died almost immediately afterwards. The difficulties of diagnosis in this case were considerable, owing to the close resemblance of the physical signs of pneumothorax and hernia of the stomach and to the fact that both these conditions coexisted. The diminution in the circumference of the abdomen and the subsequent vomiting of coffee-ground material were the main points upon which the diagnosis of hernia of the stomach was made. It might be thought that operation should have been undertaken sooner, but the patient's general condition was so desperately bad throughout that at no time did it seem likely that operation would hold out any great hope of recovery.—THE PRESIDENT, in discussing these two cases of rupture of the diaphragm, remarked that the condition was more often seen in the post-mortem room than the operating theatre; it was very difficult to detect during life.—Mr. SPENCER advocated operation at the earliest possible moment. In cases less severely injured than those just narrated the prospect of success would be more favourable.

OBSTETRICAL SOCIETY OF LONDON.

The Treatment of Ovarian Prolapse by Shortening the Ovarian Ligament.

A MEETING of this society was held on Dec. 5th, Dr. W. R. DAKIN, the President, being in the chair.

Dr. VICTOR BONNEY read a paper on the Treatment of Ovarian Prolapse by Shortening the Ovarian Ligament, which will be found *in extenso* in another column.

Mrs. F. N BOYD agreed with Dr. Bonney in advocating suspension of the ovary in some cases. She had drawn attention to the desirability of it in a paper on conservative surgery of the tubes and ovaries read before the British Medical Association at Ipswich in 1900. She had employed practically the same procedure as Dr. Bonney. She did not, however, think it was necessary as a routine practice to accompany ventro-fixation, as in most cases the ovaries were restored with the uterus to a normal position by ventro-fixation, just as in some other cases by a pessary. She fully agreed with Dr. Bonney that the surgery of the ovary should be as conservative as possible, but she differed from his opinion that the recurrence of cystic disease in the ovary, which she had unfortunately seen several times after resection of diseased ovaries, was due to re-adhesion of the ovary to the bed out of which it had been detached. She thought the recurrence of cystic disease was due rather to pathological processes persisting in the ovary itself, which would not be prevented by suspending it elsewhere away from the part to which it was primarily adherent.

Dr. G. E. HERMAN quoted the abstract of Dr. Bonney's paper to the effect that "the surgical treatment of ovarian prolapse had received little attention." He (Dr. Herman) thought that it had received all the attention which it deserved. He knew of no evidence that change in the position of a healthy ovary made it tender. Tenderness of the ovaries was generally a local manifestation of neurasthenia. He had watched patients with tender ovaries taken into hospital and there given the benefits of food, rest, and sleep, who had left the hospital with the ovaries in the same position as when they were admitted, but no longer tender. He had treated patients with tender ovaries, had lost sight of them for many months or years, and then seen them again and found the ovaries in the old position, but no longer tender.

Dr. G. F. BLACKER thought that these cases were of importance since the condition was often a source of great distress to the patients. At the same time, he quite agreed with Dr. Herman that operative treatment was seldom called for. One of the best means of treating such cases was the occurrence of pregnancy. In these conditions the ovary, placed at rest as it was for a period of nine months and elevated out of the pelvis, tended to become less painful, and if proper care was taken to insure normal involution of the uterus and its ligaments the displacement often did not recur after delivery. The fact that many of these patients were neurasthenics was a factor to be borne in mind in counselling any operative treatment. The improvement of the general health was of far greater importance. Indeed, sending the patient away from home, the regulation of the marital relations, and a few words of advice to the husband were often of the greatest possible benefit. He could not understand how any abnormality in the position of the ovary could play any very great part in the production of cystic degeneration of the organ. Nor did he understand how the action of gravity could have any great effect. He was under the impression that the intra-abdominal pressure acted equally in all directions, and gravity could hardly have any influence on the ovary apart from the other viscera inside the peritoneal cavity.

Dr. BRIGGS believed that operation for uncomplicated ovarian prolapse was very rarely necessary. Some of the uncertainty in the results of fixation operations was attributable to the complications of neurosis or minor organic disease, the nature and extent of which were occasionally unknown to the operator.

Dr. T. W. EDEN said that he was quite disposed to think that the operation described by Dr. Bonney might prove to be useful in cases of uncomplicated ovarian prolapse which resisted all other methods of treatment and were not associated with well-marked neurasthenia. Such cases did occur, although they were rare, and he could not quite agree with Dr. Herman's dictum that prolapsed ovaries gave trouble to none but neurotic women. With regard to cases complicated by retroversion of the uterus or inflammatory disease of the uterine adnexa, he did not think that shortening the ovarian ligament would be required as a routine practice in such conditions. He quite agreed with Dr. Bonney as to the importance of conserving the ovaries, especially in the case of young women; but most cases of salpingo-oöphoritis were due to infection, and the question which the operator had to face was whether by leaving the ovary he would not also allow a focus of infection to remain which would give rise to further trouble in future.

Dr. BONNEY, in reply, pointed out that his paper dealt solely with the surgical treatment of ovarian prolapse and its allied conditions. He had taken it as understood when addressing the Obstetrical Society that proper care and observation should be exercised to exclude neurasthenic cases. Such ordinary precautions were always exercised, he had thought, by accredited gynæcological surgeons. He totally disagreed with Dr. Herman's sweeping statement. As Dr. Briggs had pointed out, it was often impossible to recognise certain forms of ovarian or tubal disease by vaginal examination. Many of these prolapsed and painful ovaries were found on operation to be associated with degrees of adhesive salpingitis. No one had a right to assume omniscience in these cases. Whilst it was true that in a certain number of those he had included under Group 1 the symptoms were largely neurotic, there could be no doubt as to their reality. The anatomical considerations which he had referred to were not to be passed over so lightly and the easy process of labelling all these women as neurasthenics was unscientific. He agreed with Dr. Blacker that a further pregnancy sometimes cured these patients but he could not follow him when he said that the force of gravity did not act within the abdominal cavity. This was a surprising statement How, then, were the shifting dulness of ascites and the gravitation of extravasated fluids and heavy tumours into the pelvis to be accounted for? Exception had been taken to the practice of shortening the ovarian ligaments when performing ventro-fixation but examination would make apparent the extent to which they were often elongated. There could be no doubt that the present surgical treatment of the cases included in Group 3 was far from satisfactory. The patients returned later with post-operative retroversion and (if the ovaries had been conserved) with fixed ovarian prolapse. It was to remedy these evils that he had adopted the procedure described.

The following specimens were shown:

Dr. M. HANDFIELD-JONES: Solid Fibroma of the Ovary undergoing Extreme Calcareous Degeneration.

Dr. H. R. SPENCER: Three Fibromyomatous Uteri with Hæmorrhage after the Menopause.

Dr. W. A. POTTS (introduced by Dr. T. G. STEVENS): Lithopædion.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 6th, Dr. Alexander R. Galloway, the President, being in the chair.—Dr. George Rose read notes on the Therapeutic Use of Tuberculin T.R., communicated by Dr. Mackintosh, late resident surgeon, Royal Hospital for Sick Children, Aberdeen. The patients were children whose ages ranged from one and a half to 12 years. The opsonic index was always taken and the dose

was repeated at intervals varying from ten days to three weeks. The treatment was not used for cases where tubercle was generalised or where the patient's temperature was over 100° F. In one early case of pulmonary tuberculosis which was treated the opsonic index was 0·8 at the commencement of the injections. The patient improved and gained weight and at the end of eight months was practically recovered. Of six cases of the plastic variety of tuberculous peritonitis that were treated only one improved and this only after five months. The opsonic index in all cases was raised. Two cases of the ascitic variety were both quite well at the end of six months' treatment. Of two cases of lupus which had been formerly treated by scraping both improved as regards the lupus. A concomitant caries of the nasal bones from which one of them also suffered was not improved. Numerous cases of tuberculous disease of joints were treated with either arrest of the disease or improvement. Dr. Mackintosh, however, was of opinion that it was doubtful if routine treatment by tuberculin T.R. was judicious in the case of children.—Mr. H. M. W. Gray said that he still had faith in this mode of treatment. In early cases and cases not acute it nearly always did good. Recent results had not been so satisfactory, probably through defective manufacture, owing to increased demand.—Dr. John Gordon said that he had experienced good results in tuberculous peritonitis and in tuberculous disease of the knee-joints and the cervical and prostate glands.—Professor A. Ogston said that under treatment by tuberculin T.R. he had seen marked improvement, especially in cervical gland cases.—Mr. Gray read a paper on Duodenal Ulcer and described six cases of perforation. All the patients were men, five of whom recovered. He said that if ulceration of the duodenum was once established the tendency to serious complications, such as stenosis, hæmorrhage, and perforation, was more pronounced than in gastric ulcer. Gastro-enterostomy should therefore be recommended as a preventive measure, if the symptoms did not yield very readily. As regards the success of an operation, the mental attitude of the patient—the determination to get well—had a great effect. There was no doubt about the power of mind over matter in these as in all serious operations in favouring recovery. The surgeon ought to gain the confidence of the patient, encourage this determination, and get him to look beyond the misery of the first 24 or 48 hours after operation to the time when he will be enjoying life again. This was well shown in the case of a man, 63 years of age, operated on 18 hours after perforation whose "grit" carried him through. In two cases the area of tenderness was confined to the right third of the abdomen. Incisions were made in the mid-line above the umbilicus and over the appendix, the latter for drainage purposes. If the tenderness were more or less universal then both incisions were made in the mid-line, one above and one below the umbilicus. In a hospital or nursing home special arrangements might be made to procure a continuous supply of warm saline solution with which the exposed intestine could be sluiced and kept from cooling. In that case Mr. Gray united the upper and lower incisions but where the supply of saline solution was not available this method was too dangerous because the inevitable cooling of the intestines caused intense shock which was likely to be fatal very soon. If difficulty was experienced in getting at the ulcer—i.e., when owing to adhesions the duodenum was fixed—a transverse incision opposite the ninth or tenth costal cartilage would make manipulation much easier. Such patients were not safe from further trouble until gastro-enterostomy had been done, but in the majority of cases it was not advisable to do it at the operation for perforation, because the patients were in too bad condition.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 7th, Dr. Leonard P. Mark, the President, being in the chair.—Mr. Donald J. Armour read a paper on Perforation in Typhoid Fever, in which he stated that perforation was more common in men than women, very rare in children, and the third week of the disease was the most frequent time. Out of 167 cases the perforation was situated in the ileum in 136, or 81·4 per cent.; in the large intestine in 20, or 12·9 per cent.; and in the vermiform appendix in 5, or less than 3 per cent. The symptoms on which most dependence could be placed were sudden acute pain in the abdomen, collapse, and an abrupt fall of temperature. Intestinal hæmorrhage and a steadily rising leucocytosis were danger signals. He dwelt on the great importance of early recognition of the symptoms and the calling in of surgical aid. In suspected cases in which it was impossible to arrive at a diagnosis in other ways a small exploratory incision under local anæsthesia should be made. The use of opium was only justifiable after the diagnosis had been made. In operating two points should always be remembered: (1) that there might be more than one perforation present; and (2) that it was necessary to examine the appendix before closing the abdomen.—Mr. W. McAdam Eccles agreed that an operation should be prepared for immediately the signs and symptoms of perforation were apparent and alluded to the difficulty of diagnosing between perforating appendicitis and perforations in enteric fever.—Mr. E. P. Paton thought that a Widal's reaction should always be taken as an aid to diagnosis.—Mr. F. G. Lloyd agreed that opium should be given after diagnosis so as to lessen shock and to keep the patient in a better condition for the operation.—Dr. A. E. Russell read a paper on the Etiology of Uræmia. The cerebral manifestations of uræmia were alone considered. The similarity between many of the symptoms of uræmia and those of conditions attended with increased intracranial tension was remarked upon. Indeed, uræmia had often been diagnosed erroneously as cerebral tumour. Conditions of increased intracranial tension were liable to be associated with an increase in the blood pressure. The meaning of this had been made clear by Harvey Cushing who showed by experiments on animals that an increase of intracranial tension was associated with a gradual and corresponding rise in the peripheral blood pressure; within certain limits the blood pressure rose to a point above the intracranial tension. Without this compensatory rise in blood pressure the cerebral circulation would cease when the intracranial tension became equal to that of the blood pressure. Cushing had also shown that in cases of intracranial hæmorrhage, associated with a high tension pulse, the blood pressure fell to a most marked extent on trephining and evacuating the blood. Similarly with cerebral tumour the general pressure symptoms were markedly relieved by operative measures designed to lower the intracranial tension; convulsions ceased, headache and vomiting were relieved, and optic neuritis subsided. In uræmia a very similar group of symptoms was often to be seen, and inasmuch as the condition was then commonly associated with an increased blood pressure it was permissible to inquire whether the explanation might not be the same—viz., that the intracranial tension was increased. That this was so was practically proved by the large number of cases which had been reported in which immediate and striking relief followed on lumbar puncture in uræmia, and it was to be noted that the relief was most marked when the cerebro-spinal fluid spurted out from the needle—i.e., when the pressure within the spinal space was greatest. It was urged that in such cases lumbar puncture should be performed.—Mr. McAdam Eccles said that it was a physiological fact that the removal of cerebro-spinal fluid was followed by rapid re-secretion of the liquid and suggested the advisability of prolonged drainage in cases where simple puncture was ineffective.—Mr. C. R. B. Keetley, Mr. Lloyd, and others took part in the discussion.

MANCHESTER MEDICAL SOCIETY.—A meeting of this society was held on Dec. 5th, Dr. S. Buckley, the President, being in the chair.—Dr. W. Milligan read a paper upon the Clinical Manifestations of Laryngeal Tuberculosis, with special reference to local treatment, both medical and surgical. A short description of the pathological anatomy of tuberculous laryngitis was given, special stress being laid upon those portions of the laryngeal mucosa the most vulnerable to tuberculous infection. The question of treatment was gone into with some detail and the more severe surgical measures which had lately been employed were somewhat severely criticised. Special stress was laid upon the advisability of absolute vocal rest and the advantages of residence in a sanatorium were discussed. The purely local treatment of laryngeal phthisis was discussed under the headings of medicinal applications and surgical treatment and stress was laid upon the advisability of medicinal applications being of a sedative nature. The great value of treatment by electro-puncture was fully gone into and the reason for its application was thoroughly discussed. The value of tracheotomy in early cases of laryngeal phthisis was mentioned and the indications which appeared to Dr. Milligan to be of value were (1) an early and localised laryngeal infection; (2) an inactive pulmonary lesion with absence of high temperature and profuse expectoration; and (3) a condition of the body

where tissue waste and tissue repair were about evenly balanced. Treatment by means of tuberculin under control of the opsonic index was mentioned as offering a promising field in treatment. The fact that the promises held out several years ago by enthusiastic laryngologists had not been entirely realised must, however, not warp the judgment in endeavouring to sift out those cases where surgical treatment was likely to be of value and those cases where it was quite unjustifiable. As a method of relieving various symptoms connected with difficulty of deglutition and of respiration surgical measures had an undoubted place. The conclusions to which Dr. Milligan had arrived were laid down as follows. 1. The importance of the early recognition of the development of laryngeal phthisis in any given case of pulmonary tubercle. 2. The necessity in certain cases of local treatment of laryngeal lesions in conjunction with medicinal and fresh air (sanatorium) treatment. 3. The good results to be obtained from the treatment of local laryngeal lesions in cases where the pulmonary disease was stationary, chronic, or very inactive. 4. The necessity of abstaining from any active local surgical measures where there was high temperature accompanied by progressive loss of weight and profuse expectoration. 5. The great relief afforded by the surgical removal of dense infiltrations and areas of ulceration situated in and around the upper orifice of the larynx. 6. The great value of electro-puncture in cases of dense infiltration. 7. The necessity where lactic acid was used of rubbing it thoroughly into the base of the existing ulcer and not merely using it as a superficial pigment and the advisability of discarding its use altogether in cases of infiltration of the mucosa where no breach of epithelial continuity was visible. —Dr. E. S. Reynolds mentioned two cases of "Intermittent Limp" occurring in men, both of whom were rather heavy smokers but were not in any sense neurotics. In one case the arteries of the foot were imperceptible on both sides, though the patient was a most athletic man, aged 29 years. In the other case, that of a man, aged 44 years, who was a great walker, the arteries of the affected foot were perceptible but much weaker than on the healthy side. Exercise in both cases brought on the pains, accompanied by intense pallor and coldness of the affected parts.—Dr. Arnold W. W. Lea read a communication on Some Forms of Tuberculosis of the Pelvic Viscera.

MIDLAND MEDICAL SOCIETY.—A meeting of this society was held on Dec. 12th, Dr. Arthur Foxwell, the President, being in the chair.—Dr. James E. H Sawyer showed an infant, aged 15 months, who had suffered from a peculiar form of Dysphagia since the age of six months. The child could masticate and swallow solid food quite easily. When liquids were taken they were held in the mouth for some considerable time, the child opening and closing the mouth until the fluid had disappeared, which it did gradually. On examination nothing abnormal could be detected in the mouth and pharynx and no obstruction was present in the œsophagus.—Mr. J. Jameson Evans showed a child, aged one year and nine months, suffering from Plexiform Neuroma of the right upper eyelid and root of the nose. The condition had been present since birth. The skin of the right upper eyelid was thickened, flabby, and pendulous and overlapped the lower lid; the patient could not elevate the lid and it was with great difficulty that the eyeball could be exposed for examination. Neither the eye nor the orbit seemed to be involved in the growth, though the upper margin of the orbit was a little irregular. The swelling involved the skin at the root of the nose on the right side but there was no abnormality of the nasal bones. Ill-defined pulsation was to be felt at the inner part of the growth and this, with occasional attacks of congestion, suggested to some of the members that it was of an angiomatous nature.—Dr. W. R. Jordan showed a girl, aged three and a half years, who three months before had been taken ill suddenly, losing the use of her limbs entirely and being delirious for three days. The day of onset was extremely hot and she had been out in the sun. After three weeks she began to recover the use of her limbs. When seen by Dr. Jordan she walked with a slight dragging of the left leg only, the left foot turning inwards on walking, but she could not go upstairs or rise after falling down. The knee-jerk was absent on the left side. The case was shown as one of infantile paralysis, with an unusually well-marked acute stage and a residual paralysis affecting the rectus abdominis, a muscle rarely involved in this disease.—Mr. George Heaton showed three specimens of Enlarged Prostate removed during the past 12 months. The first specimen weighed two and a half ounces and was removed from a man, aged 68 years, who for more than five years had suffered from increased frequency of micturition and several attacks of profuse hæmaturia. The operation was rendered extremely difficult by the organ being densely adherent to the tissues at the base of the bladder, and the patient, though he did well for a few days, died afterwards from pelvic cellulitis and uræmia. The second specimen had a pedunculated so-called middle lobe attached to the apex of its left lobe. The man was aged 53 years; he had had trouble for two years and was admitted to hospital with complete retention of some days' duration. He made a good recovery. The third specimen was removed from a man, aged 71 years. It was a large soft glandular enlargement and was removed with ease. The man made a good recovery.—Mr. William Billington showed a Tumour of the Breast—an adenosarcoma with intracystic papillomatous growths. The patient was an unmarried woman, aged 56 years. The tumour formed a lump in her breast of the size of a cocoanut; it was stony hard and moved freely over the pectoral fascia, though the skin could not be moved over the tumour. The breast was excised together with several large soft glands in the axilla. On account of its rapid growth and richly cellular stroma the tumour was regarded as a sarcoma.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—A meeting of this society was held on Nov. 28th, Mr. Arnold Thomson, Vice-President, being in the chair.—Dr. George J. Sealy (Weybridge) read a paper entitled "The Food Factor in the Twentieth Century." He said that of late years a marked change had taken place in connexion with abdominal troubles and that an explanation of this might be sought in the food factor, especially in the importation of large quantities of tinned meats and other food. After alluding to the stimulating properties of meat and to the fact that those who ate the most meat desired the most meals, he next proceeded to detail the results of his experience when seven years ago he reduced his proteid intake to a third of its previous amount. The facts observed were much in accordance with those described by Professor Chittenden in his "Physiological Economy in Nutrition," published last year. The good effects obtained by this change were described as remarkable and were evidenced in the nervous system no less than in the peripheral blood-stream. Dr. Sealy next alluded to the part that the large bowel played in the auto-intoxication so common at the present time and suggested that the most efficient preventive was to limit by reasonable dietary precautions the production in this viscus of media favourable to bacterial growth. The dejecta of persons living on a small proteid diet combined with what would generally be considered a large fruit and vegetable one were of smaller volume than those of persons partaking of a large proteid diet and little or no vegetables. This seemed to indicate that when the large bowel was not encumbered with the putrefactive débris which an excessive ingestion of proteid entailed it was much more capable of dealing with cellulose and vegetable constituents generally.—Dr. Eric Pritchard (London) said that he did not think that nitrogenous articles of diet continued in excess were more fatal in their consequences than carbohydrates. In his experience symptoms due to the general acidosis which was the corollary of an excessive intake of carbohydrate food were even more common and in their way quite as serious as the toxæmias which resulted from the excessive consumption of proteids. Further, he thought that the body possessed powers of adaptation so great that it could accommodate itself to any variety of food, though at the present time they were best fitted to consume the sort of diet that their immediate ancestors had been in the habit of taking—namely, a diet consisting largely of animal food. With regard to the auto-intoxications that resulted from the absorption of the products of decomposition and fermentation which took place in the large bowel, he believed that it was a matter which was largely under individual control—or at least could be—if they only paid sufficient attention to the early development of the digestive system. The intestinal tract grew and developed during early infancy and childhood in response to the stimuli which reached it and naturally food afforded the majority of these. Over-feeding led to over-development not only of the stomach but of the bowel as well and there was no factor in the environment which conduced so readily to auto-intoxication as an enlarged and dilated colon. From a systematic examination of the stools of children who had been carefully

dieted from infancy onwards and in whom good habits had been instilled he felt certain that the size and functions of the large bowel could be so regulated that constipation would be an unknown event and that the passage of small, well-formed motions would be the invariable rule.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 6th, Dr. W. C. Chaffey, the President, being in the chair.—Dr. Robert Hutchison (London) read a paper on the Scientific Treatment of Dyspepsia. He defined dyspepsia as the state due to functional conditions of the stomach and excluded conditions with organic lesions. Organic lesions such as ulcer, cancer, and gastritis had more definite symptoms than the functional disorders. Vomiting and severe pain were nearly always due to organic lesions. He classified the forms of dyspepsia according to the disturbances of stomach function: 1. Secretory, (*a*) excess, hyperchlorhydria and hyper-secretion; and (*b*) defect, hypochlorhydria and achylia. 2. Motor, (*a*) excess, spasm, and tormina ventriculi; and (*b*) defect, motor insufficiency. 3. Sensory, (*a*) excess, hyperæsthesia and gastralgia; and (*b*) defect (?) achoria. Usually hyperchlorhydria and hyperæsthesia were combined, and defective secretion and defective motility. Often gastritis was superposed on the functional condition and had to be treated first. Hypersecretion usually gave rise to pain from two to three hours after meals, which was relieved by taking food. Hypochlorhydria might cause no pain or discomfort and was often only discoverable by examination after test meals. Diminished motility could be recognised by flatulence and by splashing on palpating the stomach. In hyperæsthesia pain was often greater after liquids than after solids. For treatment, all cases of dyspepsia were benefited by proper rest and exercise, by fresh air, by avoidance of chill, by avoidance of pressure on the stomach, by attention to the teeth, by the regulation of tobacco, alcohol, tea and coffee, and by the use of aperients. In excessive secretion secretory stimulants (salts, spices, &c.) must be avoided; in bad cases a milk diet was best, but in ordinary cases which did not last long a proteid diet was advised to neutralise the acid; as medicines were mentioned the soluble and earthy carbonates, especially bismuth, and bromides, nitrate of silver, or astringents; of belladonna he was doubtful. In diminished secretion the patient might have condiments, alcohol, proteids, alkalies, and bitters; he doubted the value of hydrochloric acid and ferments. In motor spasm there were required a bland diet, sedatives and antacids, and local heat, such as poulticing. In motor insufficiency the patient should have an easily digestible diet without much fluid; tea possibly promotes insufficiency; of drugs, alcohol, strychnine, acids, carminatives, ipecacuanha, and aperients; also, most important, massage; and sometimes electricity and lavage. In hyperæsthesia a bland diet was indicated, but in some hysterical cases forced feeding was necessary; of drugs, bismuth and bromide combined, cannabis indica, hyoscyamus, chloroform, morphine, and hydrocyanic acid might be given. Dr. Hutchison concluded by appealing for greater precision in the diagnosis and treatment of gastric disorders.—The paper was discussed by Dr. C. F. Bailey, Dr. Walter Broadbent, Dr. J. F. Gordon Dill, Dr. E. Hobhouse, and Dr. A. Newsholme.

BRITISH GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held on Dec. 13th, Mr. F. Bowreman Jessett, the President, being in the chair.—Mr. J. Furneaux Jordan made a further report on a specimen exhibited at the last meeting and stated that it was an œdematous fibroid.—Dr. J. H. Swanton read notes on a case of Abdominal Hysterectomy for Fibroid under Spinal Analgesia and showed the specimen. The tumour, which weighed three and a half pounds, was removed from a patient, aged 44 years, complaining of hæmorrhage and pressure symptoms. It was removed by a modification of Doyen's method. The intraspinal injection consisted of six cubic centimetres of a 5 per cent. isotonic solution of novocain and suprarenin. The tumour was removed without any pain or shock but a general anæsthetic was used while passing some of the final sutures. The patient left the hospital on the twenty-fourth day.—Mr. Charles Ryall showed a Uterus removed under Spinal Analgesia for Hyperplastic Endometritis. The patient was aged 30 years, and complained of menorrhagia; she had been curetted several times with an unsatisfactory result. The uterus was large and the cervix was patulous. Hysterectomy was decided on and owing to her exhausted condition it was performed under spinal analgesia. She was injected with eight cubic centimetres of novocain and suprarenin solution. Analgesia followed in ten minutes and the entire operation lasted 41 minutes. The patient did not complain of actual pain, but when the uterus was seized and drawn up she was conscious of something being pulled on. The operation was satisfactorily concluded and the patient made an uninterrupted recovery. He considered that spinal analgesia was preferable in some classes of cases, such as the condition known as "acute abdomen," especially in its later stage; also in acute or serious chronic pulmonary lesions and in certain cardiac diseases. In major operations he considered it to be an advantage to have a patient unconscious.—Dr. R. H. Hodgson read a paper on a Cause of Fatal Collapse after Prolonged Abdominal Operations. He said that fatal collapse was often attributed to the length of time occupied by the operation rather than to the unsuitability of the anæsthetic. Each case ought to be considered on its own merits and the anæsthetic chosen accordingly. More deaths followed long operations on the abdomen when ether was used than when chloroform was employed. The effects of ether and chloroform were contrasted in their action on the lungs and heart. The opinion was expressed that both these anæsthetics produced their effect by impeding the proper elimination of poisonous substances. Fatal cases arose from causes outside the patient and often depended either upon the anæsthetist or the operator and so far were preventable. Both anæsthesia and operation were inseparable from the operator.—Dr. H. M. Macnaughton-Jones read Notes from the Clinics of Heidelberg and Freiburg, illustrated by the Epidiascope. The paper gave an interesting account of interviews with Professor Rosthorn at Heidelberg and Professor Kroenig at Freiburg, as also valuable observations upon technique and methods of treatment.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held on Nov. 28th, Dr. E. H. L. Oliphant, the President, being in the chair.—Fresh specimens were shown by the President, Dr. J. M. Munro Kerr, and Dr. John Lindsay.—Dr. R. Jardine read a paper on Some Interesting Cases of Pregnancy and Labour which he divided into four groups. 1. A case of premature labour in a paralytic in whom labour came on at the beginning of the seventh month, the child being born dead. The patient had complained of "paralysis" of both legs for four years due to an accident while boating. The examination of the patient at the time of the confinement showed atrophy of the muscles of the lower limbs; ankle clonus was present, the knee-jerks were exaggerated, and there was difficulty in straightening out the legs. The labour was extremely easy, the puerperium being normal. 2. This was a case of Cæsarean section for contraction at the outlet of the pelvis. The patient was a primipara, pregnant eight months at onset of labour. The pelvic outlet was much contracted, the distance between the ischial tuberosities being one and a half inches. Cæsarean section was performed and the patient and child were dismissed well. 3. Three cases in which there was difficulty in delivering the body after the head had been born. In one craniotomy was performed owing to the narrow condition of the pelvis; the head having been removed one arm was separated from the trunk before delivery of the remaining portion of the fœtus was effected. In the second case the child was dead on account of prolapse of the cord; craniotomy was performed and the difficult delivery of the shoulders was afterwards found to be due to a marked contraction ring in the uterine wall. In the third case the head was delivered by means of forceps but the shoulders were impacted on admission into hospital. Traction was made on the arms, the delay being due to the large size of the child. 4. A case of toxæmia of pregnancy. The patient, who was seven and a half months pregnant, became unconscious for a short time while at her work; paresis of the left side was then noticed. The urine was loaded with albumin and was scanty in quantity. The pupils showed irregularity. Labour was induced two weeks later and ended naturally by the birth of a live child. The patient made a good recovery but seemed somewhat abnormal in her mental condition.—Dr. Jardine's paper was discussed by Dr. Kelly, Dr. Munro Kerr, Dr. Carstairs C. Douglas, Dr. G. Balfour Marshall, and the President.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held on Dec. 12th, Dr. M. Mackintosh, the President, being in the chair, when an address was given by Dr. J. Milne Bramwell on Hypnotism. He gave an

account of his early experiences in which he had made use of hypnotic sleep as an anæsthetic in surgical operations as well as for the conveyance of therapeutic suggestions. More modern investigations had shown that suggestion could be carried out successfully without the subject being thrown into a state of sleep, and that loss of consciousness was not a necessary part of treatment; hypnotism as an anæsthetic was very uncertain in its action. The method of conveying suggestions adopted by him was described, and he candidly admitted that he had no idea why systematised suggestion as practised by himself should be successful when identical suggestions by eminent physicians had failed in their object. He referred in particular to cases of dipsomania, of *grande hysterie*, and of obsessions as cases in point. In answer to a number of questions addressed to him at the close of the lecture, Dr. Bramwell stated that it was possible to teach almost anyone to hypnotise but that the power acquired depended on the individual and experience. In no case had any accident occurred in his practice and he was of opinion that no suggestion to commit a criminal action could be forced on a subject owing to the "moral hyperæsthesia" induced by hypnotism. During the whole of his experience he had never come across any evidence of the possibility of thought transference.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—A meeting of this society was held on Dec. 10th, Dr. J. Lindsay Steven, the President, being in the chair.—A recommendation from the council "that amalgamation of the society with the Glasgow Medico-Chirurgical Society be considered" was discussed and the subject was remitted to the council to prepare a scheme.—Dr. George H. Edington showed a specimen from a case of Empyema in which fatal hæmorrhage occurred from an erosion of the subclavian artery. The end of the drainage-tube which was inserted at the operation was found to reach to the vessel wall and corresponded with the aperture in the vessel, and he was of the opinion that this was the explanation of the occurrence of the hæmorrhage.—Dr. Carstairs C. Douglas described an Improved Clinical Method for the Estimation of the Factors of Gastric Acidity and demonstrated the tests. The tests were performed in three stages with deci-normal soda solution run in from a burette. First, titration of ten cubic centimetres of the filtered gastric juice with tropæolin $\overline{OO}$ for the free HCl, subsequent treatment with di-methyl-amido-azo-benzol for the presence of the organic acids, and by phenol-phthalein for the total acidity, while the last reading of itself gave the combined HCl and acid salts. A second quantity of filtered gastric contents was treated with sodium-alazarin-sulphonate in water, and this gave the value of all the elements except the combined HCl. The value of the combined hydrochloric acid was thus obtained from the difference of the figures in the two estimations. Lastly, a fresh quantity after evaporation was titrated with phenol-phthalein, and the reading obtained gave the total acidity less that due to the volatile organic acids. The difference of this estimation and that obtained for total acidity represented the value of the volatile organic acids.

Reviews and Notices of Books.

Die Behandlung der Krankheiten der Nase und des Nasenrachens. (*The Treatment of Diseases of the Nose and Naso-Pharynx.*) By Professor Dr. A. ONODI, Budapest, and Professor Dr. A. ROSENBERG, Berlin. With 209 photographs. Berlin: Oscar Coblentz. 1906. Pp. 468. Price 8.50 marks.

THE first part of this book is devoted to general treatment, to a description of instruments and the manner of using them, and to methods of dealing with such conditions as undue narrowness of the nostrils and various means of keeping them open. The authors next give a full *résumé* of the history of paraffin injections, operative indications, the advantages and disadvantages of the various means that are employed, and whether hot or cold paraffin should be used for nasal work. They then deal with the application of medicaments directly to the interior of the nose, and the most suitable instruments to be employed for this purpose, and also with the effect on the nasal mucous membrane and naso-pharyngeal mucous membrane of various drugs. The use of vapours or vaporised materials is then carefully considered and at the same time the varieties and modes of employment of insufflators and inhalers in the upper air passages are discussed. The methods and solutions used in submucous injection for local anæsthesia are fully considered. Following this the preparation of the patient for operation and the sterilisation of the operator's hands, and so on, are described minutely. The various forms of chemical caustics and the correct way of using them in each case are considered. Amongst those mentioned are trichloracetic acid and chromic acid. A very full and clear description of the methods of employing the galvano-cautery, together with the indications for its use, comes next, and then follows an account of the uses of snares, scissors, saws, motors, and curettes. The remaining and larger portion of the book deals with the special treatment of the diseases and abnormal conditions of the nose and naso-pharynx, commencing with anomalies and malformations and then proceeding to diseases.

It can scarcely be said that there is a great deal which is distinctly new in this volume but there is no doubt as to the excellence of its teaching, for Professor Onodi and Professor Rosenberg are both of them well known in this country by reason of the excellence of their previous writings, and we can heartily recommend the book to the careful consideration of their English *confrères*, as there is much in the minute detail which is instructive and which, we feel sure, will place many matters before them in a new and frequently in an extremely agreeable and instructive manner.

Alcoholism: A Chapter in Social Pathology. By W. C. SULLIVAN, M.D. R.U.I., Medical Officer in H.M. Prison Service. London: James Nisbet and Co., Limited. 1906. Pp. 214. Price 3s. 6d. net.

OVER-INDULGENCE in the study of works on alcoholism, as in the drug itself, is liable to lead to a certain degree of nausea, and the jaded reader turns with reluctance to each new deliverance, fearing to find the usual "platform facts," the usual excellent sentiments, and the usual lack of practical indication as to remedying the evil deplored. The present little book is an agreeable surprise. The author has something new to say as to the pathology of alcoholism and new ideas as to means for controlling some part at all events of the disease. Dr. Sullivan divides the causes of alcoholic indulgence into two heads, the convivial and the industrial, and he emphasises the much greater importance of the latter in the production of that chronic alcoholism by which the greatest evil is wrought. Convivial drinking may lead to acute outbursts of intoxication and hence to the commission of certain crimes, chiefly of violence or lust. Industrial drinking, on the other hand, leads to the mental and bodily wreck of the individual and to resulting degeneracy of the race. If we ask what is this industrial drinking, we find that it is the result of that property of alcohol by which it produces a temporary sense of increased capacity for work. This sense of strength soon passes off and a fresh supply of the drug is needed to renew it. It is in the trades which involve hard muscular work with practically no skill that this form of indulgence is most rife. Thus it prevails among dock labourers and similar casual workers to the greatest extent, but is also found largely in foundrymen, textile workers, and other trades. Such men may begin work with a morning "livener" and continue with frequent potations throughout the day in order to enable them, as they think, to perform the heavy manual labour incident to their callings. Much depends on the custom of the different trades and much on the licence permitted by the employer. Miners who are greatly given to convivial outbursts are unable from the nature of their work to get drink in worktime and are very free from industrial

drinking. What, then, are the indications for reformatory regulations? It is the late opening rather than the early closing of public-houses that is important as a check on industrial drinking by stopping the early "livener" before work. Shorter hours of labour and more favourable general conditions may do something to lessen the craving for alcohol as a "strengthener," but more depends on the employer, and legislation such as the Employers' Liability Acts, which tend to make employers of labour responsible for accidents happening to their men, is a valuable step in the right direction. We have not space to do justice to the whole of the author's argument—to his illustrations from history, to his comparison of the habits of various trades and of the statistics of crime and suicide as found among them. The book may be heartily commended to all who are interested in the study of alcoholic indulgence and who desire to read a dispassionate scientific study of one side at least of the complex problem. A gleam of new light is thrown on the subject of chronic drunkenness—a gleam of hope, too, that without heroic legislation we are yet advancing in the right direction by means of efforts for the general social improvement of the working classes.

LIBRARY TABLE.

The World's Classics. Vol. lxxxv., Matthew Arnold's Poems; vol. xciii., Bacon's Advancement of Learning and The New Atlantis; vols. xcvi., xcvii., and xcviii., Motley's Rise of the Dutch Republic; vol. cxv., Leigh Hunt's Essays and Sketches; vol. cxvii., Æschylus, translated by Lewis Campbell. London, New York, and Toronto: Oxford University Press, Henry Frowde. Price 1s. per volume in cloth.—The seven volumes now before us are admirable specimens of the modern cheap and well-printed issues of literary classics, of which so many examples are now on sale. No review of any of them is necessary at this juncture. To Arnold's poems Mr. Quiller Couch contributes an illuminating introduction, Professor Case does the same for the specimens of Bacon's writings, Mr. Clement Shorter for Motley's masterpiece, and Mr. R. Brimley Johnson for Hunt's Essays. The Rev. Lewis Campbell himself supplies the preface to his translation of Æschylus. Opinions may differ as to the inclusion of Arnold's poems among "classics." "Sohrab and Rustum" is a magnificent fragment it is true but as a rule Arnold's poems were curiously passionless and uninspired and give the reader the feeling that the writer thought it "bad form" to be enthusiastic. Felicity of phrase there is, as in many a line of "The Forsaken Merman," delicate landscape painting, as in "Empedocles on Etna," and in "Longing" there is an approach to passion. But there is little in Arnold's writings to stir the blood or to make the reader take an interest in the writer's subjects. As regards the other works Motley's book remains as a well-written if somewhat one-sided perspective of one of the most important epochs in the history of Europe; Bacon's "Advancement of Learning" is one of those profound philosophical works which every educated man ought to have read but which very few have read; while "The New Atlantis" has some curious foreshadowings of modern scientific discoveries. Leigh Hunt's delightful Essays are worthy to rank with those of Lamb, and as being particularly appropriate to a medical journal we may mention "The Monthly Nurse." Of Mr. Campbell's translation of Æschylus it may be said that anyone reading it will get a very fair idea of the thoughts and works of a great poet and should be stimulated to struggle with the original text. In these days, when masses of ephemeral writings are daily poured forth by the press, it is good to know that masterpieces which will never die can be procured so well printed and so carefully edited as are these World's Classics. To turn from the average modern novel or newspaper to the great works of the past is like stepping out of the Strand into a moor by the sea coast, for the mind is at once steeped in restfulness.

Literary London. By ELSIE M. LANG. With an Introduction by G. K. CHESTERTON. London: T. Werner Laurie. 1906. Pp. 349. Price 6s. net.—Miss Lang has compiled a handbook which should be of great use to those (and they are all too few) who take an intelligent interest in that collection of cities called London. Mr. Chesterton in his introduction laments this fact but rightly points out tha London by its very vastness, its history stretching back for centuries, and its overpowering masses of humanity, is too much for any person to take in in its entirety. Therefore the majority of persons, not being able to estimate the whole, take no thought for even a part. We are glad to see Miss Lang's book, for the only other work which we can call to mind on the same lines—namely, Laurence Hutton's "Literary Landmarks of London"—has been for some years, we believe, out of print. The book is well illustrated with reproductions of photographs specially taken by Mr. W. J. Roberts.

Sir Nigel. By Sir A. CONAN DOYLE. London: Smith, Elder, and Co. 1906. Pp. 394. Price 6s.—Everyone who read Sir Conan Doyle's former historical romance, "The White Company," will be glad to have this account of the youth of Sir N. Nigel Loring and of his faithful companion Samkin Aylward. Nigel—for he was only a simple squire through most of the book—met with accidents by flood and field enough to kill any ordinary person several times, but this, of course, is a common occurrence with heroes of chivalry. Twice at least he fractured his skull (p. 204 and p. 333), while on the last occasion we should say that the base of the skull was fractured. He soon got well, however, and five years later performed prodigies of valour at Poictiers. It is recorded of Wellington that when anyone asked him how he had won Waterloo he used to say, "Oh, they came on in the old way and were driven off in the old way." The ways were indeed old, for they were those of Poictiers. The positions of the opposing armies were practically the same; at both battles the English forces were protected by hedges and a sunk road, at both the French cavalry in vain tried to break through the English infantry, at both there was a road which cut through the centre of the position, at both battles one of the forces was starving, the English at Poictiers, the French at Waterloo. Substitute muskets for bows and the one battle is a replica of the other. Sir Conan Doyle's book is an excellent present for any boy who would like to know how our fathers fought in France and what gallant and chivalrous foes they met.

The Sciences Year-book, 1907. London: King, Sell, Olding, Limited. Price 5s. net.—This book forms a most useful work of reference for workers in all departments of science. In addition to the diary, which gives a blank page to each day of the year, provision is made for monthly notes, letters received and despatched, cash accounts, and memoranda. A rectangular portion of the front cover of the diary is removed in order that a monthly calendar beneath the cover may be constantly visible. The letterpress contains much of the general information usually found in calendars and diaries, but the chief feature of this year-book lies in the excellent notes and tables giving explanations of scientific facts and the necessary data and formulæ required in scientific computations. There are also a summary of the progress of science during the year, a glossary of recently introduced scientific terms, names of periodicals, societies, and so forth, together with brief biographical notes of prominent scientific men. Astronomical science is very fully dealt with and many diagrams and illustrations are given. We can recommend this year-book.

THE LANCET.

LONDON: SATURDAY, DECEMBER 22, 1906.

The Operative Treatment of Non-malignant Ulcer of the Stomach and its Complications.

IT is very rare indeed for a discussion at any of the medical or other scientific societies to be adjourned twice, but this has recently happened at the Royal Medical and Chirurgical Society. On Nov. 13th a discussion was commenced on the Operative Treatment of Non-malignant Ulcer of the Stomach and its Chief Complications, and so great was the interest in the subject that it was found necessary to adjourn the discussion to another evening; even then, however, it was not found possible to finish the discussion and once again it was adjourned. There were two reasons for this. Firstly, the subject discussed was wide, embracing many separate points on each of which much could be said; indeed, debate might have been more likely to lead to definite issues if the matter for discussion had been much more limited in extent—as it was one speaker dealt chiefly with one point and another with another. If the question had been limited to the operative treatment of any one result or complication of gastric ulcer there would have been more chance of obtaining a unanimous opinion, or at least opinions clearly defined. As it is, the discussion, though of great interest, cannot be said to have led to the elucidation of any definite principle of treatment. The other cause for the repeated adjournment of the discussion was the shifting nature of the dividing line between medicine and surgery. The constant tendency of the surgeon is to invade regions hitherto considered as belonging to the physician, and sometimes the surgeon is a little prone to take possession of territory before he can make good his title to it.

With regard to the treatment of certain of the complications of simple gastric ulcer there is no dispute. All are agreed that if a gastric ulcer has perforated an immediate operation is required, for at least 95 per cent. of these cases the patients die if no operation be performed. But even in this instance there is a doubt as to whether the surgeon should limit himself to closing the opening, or should in addition perform a gastro-enterostomy. There can be no doubt that a gastro-enterostomy diminishes greatly the chance of any second perforation and hastens the healing of the ulcer; it lessens the risk of hæmatemesis after operation and favours the rapid healing of the line of sutures. Most of those who spoke on this point thought that gastro-enterostomy should be done if the patient were not too ill, but as Mr. H. J. PATERSON put it, the worse the patient the more useful is the gastro-enterostomy likely to be. If there be cicatricial stenosis of the pylorus or a hour-glass condition of the stomach all are agreed that only by operation can any good be done to the patient. But the debate mainly ranged round the other complications of gastric ulcer and before all else came the question, What is the death-rate from simple gastric ulcer and its complications? This must be the starting point of any exact and trustworthy consideration of the subject. Dr. H. P. HAWKINS gave the statistics of 556 consecutive cases of gastric ulcer admitted into St. Thomas's Hospital. Of these the mortality was 13 per cent.: about 1 per cent. died from hæmorrhage, 8 per cent. from general peritonitis, and 2 per cent. from sequelæ such as adhesions and pyloric stenosis. Of the 556 cases more than 400—i.e., about five-sevenths—were admitted at an early stage and were discharged as cured, but Dr. HAWKINS thought that perhaps 25 per cent. of these relapsed. Mr. A. W. MAYO ROBSON, on the other hand, considered that less than 25 per cent. of cases of gastric ulcer were permanently cured by diet and rest in hospital. We cannot obtain—we cannot expect to obtain—unanimity in this matter amongst different observers but we shall probably not be far wrong if we put the proportion of cases of simple gastric ulcer which recover perfectly under non-operative treatment as less than 50 per cent. The other cases relapse or become chronic and it is amongst them that most of the deaths occur, and such cases include those in which there is the greatest chance of surgery doing good. The question of hæmorrhage was discussed and it was generally agreed that during an acute attack of hæmorrhage an operation was undesirable. Partly because in many cases the hæmorrhage is derived, not from an ulcer but from a so-called erosion of the gastric mucous membrane, this form of hæmorrhage—gastrostaxis, as Dr. HALE WHITE has named it—has a very low rate of mortality; an operation is of slight use here, while the risk from the operation is very great. In acute hæmorrhage from a gastric ulcer also no operation is desirable, for a fatal hæmorrhage from this cause is a rare occurrence, the mortality from hæmorrhage being probably less than 5 per cent., while the mortality from operation *during* hæmorrhage is between 60 and 70 per cent.

What should be the routine treatment of early gastric ulcer? There can be no doubt that medical treatment can cure completely a certain proportion of the cases. Prolonged rest is essential. At first the patient should be in bed. Rectal feeding may be employed for a short time but it is impossible to give an adequate diet by this channel, though, as Dr. HALE WHITE pointed out, subcutaneous injections of olive oil may supplement rectal feeding. Still, for the rapid and complete healing of a gastric ulcer good general health is needed and this cannot be attained or maintained if the patient is fed by the rectum. Hæmatemesis in itself is no bar to feeding by the mouth, for hæmatemesis is hardly ever an immediate precursor of perforation. The diet must be suitable in quality and sufficient in amount. This careful dieting should continue for at least six months and if at the end of that time the patient has not completely recovered an operation is clearly indicated, for if the ulcer has not healed by then either it will not heal at all or its healing will give rise to so much narrowing at the pylorus or elsewhere as to start a new train of symptoms. Mr. PATERSON put the matter simply—"If, after six weeks' complete rest on a milk diet, followed by a further period of six weeks on a milk diet with

comparative rest, followed by three months' careful dieting, the patient is not free from definite symptoms, or if, after apparent cure, the patient has a relapse, operation is probably in the best interest of the patient." With this opinion we agree. As to the operation to be performed, there is little doubt that for most forms of gastric ulcer and for most of its complications gastro-enterostomy is the most useful operation. We need not discuss now the relative merits of the several varieties of this operation; it suffices to say that gastro-enterostomy is certainly the most convenient operation. The risks of the operation are small. Mr. MAYO ROBSON put the mortality as under 2 per cent. and at the present time it may certainly be put as under 3 per cent. in skilled hands. Dr. HALE WHITE pointed out that in MIKULICZ'S clinic the death-rate from operation for benign affections of the stomach was over 7 per cent. but this figure probably refers to some years ago and includes operations other than gastro-enterostomy. Dr. HERBERT S. FRENCH quoted some statistics from Guy's Hospital by which it appeared that of 47 gastro-enterostomies performed up to 1903, 23 per cent. of the patients died within a fortnight of the operation. These results are not in accord with most statistics and we may take it that the operation of gastro-enterostomy is, on the whole, a very safe procedure and of the greatest use in many morbid gastric conditions. In fact, so useful is it that there is some risk of its being looked upon as a panacea for all the ills that the stomach is heir to and this it certainly is not. The discussion has done good in emphasising the undesirability of operating in acute gastric hæmorrhage, in insisting on the need for a more prolonged and thorough treatment of early gastric ulcer, and in confirming the value of timely operation for simple ulceration and its consequences; but more real advance of knowledge would have been secured if the area of the discussion had been more restricted.

International Congress on School Hygiene.

WE have received from Dr. JAMES KERR, one of the honorary secretaries, a preliminary programme of the Second International Congress on School Hygiene, which is to be held in the University of London, under the patronage of HIS MAJESTY the KING, from August 5th to 10th, 1907; and we have much pleasure in giving publicity to the intended arrangements. The early issue of the programme will no doubt be conducive to a larger attendance and to a more complete supply of papers than could otherwise be expected; and we hope that no effort will be spared by the medical profession to render the Congress a success, not only socially but in the far more important way of being conducive to reforms in school management and in the care of children generally. Education should be a physiological process and, if it is to be successful, it must be conducted in accordance with physiological principles which are too frequently ignored. Just at present, when sectarian and political bigots are wrangling over what is supposed to be education in a manner which the author of Hudibras would have adequately described, there is but little opening through which the voice either of common sense or of special knowledge has any opportunity of making itself heard; but we may not unreasonably hope that by next August the din of contending parties will have abated and that the consequent interval of repose may render it possible to deal adequately with some of the questions which affect the physical and intellectual welfare of the children. They, poor mites, are for the present disregarded or ignored; but all action is followed by reaction and a time will come at which their importance as citizens of the future State and as the possessors of the brains of the coming generation, will be accorded at least some share of the consideration which it deserves. The covering letter sent to us by Dr. KERR contains the undeniable statement that school hygiene is a subject of vital importance in preventing deterioration, in promoting the health and physical development of children, and in enabling them to profit by the instruction given in the school. We should be inclined to append the corollary that this instruction must be of such a nature and be concerned with such things as to render "profiting" by it possible.

The first Congress on School Hygiene was held at Nuremberg in 1904, and the resolution appointing the second, to be held in London, was passed as a definite acknowledgment of "the great educational and hygienic movement going on in the British Empire." It clearly behoves us to justify the compliment thus bestowed upon the English-speaking races, and we feel that a long step in this direction has been taken by the appointment of Sir LAUDER BRUNTON as president. He will be assisted and supported by eleven presidents of sections, of whom six—Sir JAMES CRICHTON-BROWNE, Dr. J. D. JENKINS of Rhondda, Sir WILLIAM J. COLLINS, Sir MICHAEL FOSTER, Sir SHIRLEY F. MURPHY, and Dr. CLEMENT DUKES—are members of the medical profession and calculated as such to bring special knowledge to the aid of the inquiries and discussions which it will fall within their respective provinces to organise and to direct. The titles of the sections are: (1) the Physiology and Psychology of Educational Methods and Work; (2) Medical and Hygienic Inspection in School; (3) the Hygiene of the Teaching Profession; (4) Instruction in Hygiene for Teachers and Scholars; (5) Physical Education and Training in Personal Hygiene; (6) Out of School Hygiene, Holiday Camps and Schools; (7) Contagious Diseases, Ill-health, and other Conditions affecting Attendance; (8) Special Schools for Feeble-minded and Exceptional Children; (9) Special Schools for Blind, Deaf, and Dumb Children; (10) Hygiene of Residential Schools; and (11) the School Building and its Equipment. Four general meetings are appointed in addition to the sectional work and will be devoted to the discussion of the four following questions, each of which is to be opened by three selected speakers in English, French, and German: (1) Methods for the First and Subsequent Medical Examinations of School Children; (2) School Work in Relation to (*a*) the Duration of the Lessons, (*b*) the Sequence of the Subjects, and (*c*) the Season of the Year; (3) the School in its Relation to Tuberculosis; and (4) the Lighting and Ventilation of Classrooms. The programme is therefore of wide extent and it is evident not only that a large number of subjects are of a kind to call for careful discussion, but also that, in relation to nearly all of them, there is possibly much to be learnt from the experience and the methods of other countries, and especially from Germany and America. It is at least certain that the general character of elementary education in

Germany is such as to convey to the learners some perception of the value of definite knowledge and of the wisdom of submitting to the guidance of those who possess it; while in England this result is far from being attained. The German industrial population, for example, are content to submit themselves to knowledge in the matter of vaccination and are rewarded by their immunity from small-pox; while a large section of the English industrial population not only refuses this guidance but pays a tribute of thousands of lives to the disease, and the better classes, for the sake of keeping the more ignorant of the industrial population in good humour, pay the expenses of successive epidemics. The German is ready to be guided by knowledge, the Englishman often prefers to commit himself to ignorance, especially if ignorance is supported by becoming sentiment The difference is intensified, of course, by the readiness of politicians to appeal to this ignorance and to flatter those by whom it is displayed.

The success of a congress, whatever may be the nature of the subjects with which it deals, is always largely dependent upon the attention paid to the social aspects which surround it, and we are glad to see from the programme that this part of the proceedings has been duly considered. Besides long preliminary lists of vice-presidents, members of the general committee, representatives of educational authorities, and members of separate committees for England, Scotland, Ireland, and Wales, we find an organising committee under the chairmanship of Sir EDWARD BRABROOK, C.B., a reception and entertainment committee under that of Lord CHEYLESMORE, a travelling and conveyance committee under Sir JOHN COCKBURN, and a ladies' reception committee with the Marchioness of LONDONDERRY as president and Lady MURPHY as chairman. The experience gained at the provincial meetings of the British Association for the Advancement of Science and at the meetings of the British Medical Association ought to be of great value to this side of the organisation; and we trust, more especially in view of the largely medical character of the official side of the Congress, that nothing will be left undone to render its assembly a memorable event to all the visitors from foreign countries who may be attracted by it. In view of this part of the necessary preparations it is not surprising to find that the honorary secretaries are already appealing for contributions towards the inevitable expenses of the meeting, expenses which, it is estimated, will not be less than £3000. The headquarters of the organising committee are at the offices of the Royal Sanitary Institute, in Margaret-street, London, W., and Mr. WHITE WALLIS, secretary of the Institute, shares with Dr. KERR the labours of the honorary secretariat.

Hospital Administration and Reform.

WE published last week[1] two articles bearing upon the subject frequently spoken of as "hospital abuse," which show that although a settlement of the questions involved is not likely to take place immediately, the questions themselves are, at all events, occupying the consideration of those qualified to deal with them. The first of these articles set out in detail the proposals of the Joint Hospitals Committee laid before the United Hospitals Conference of Great Britain and Ireland on Dec. 6th at University College, with Sir WILLIAM S. CHURCH in the chair, when a motion was carried "welcoming the further consideration of the principles contained in the proposals." The second article contained an account of a discussion on the economic problems in the practice of medicine which took place at 20, Hanover-square, on Dec. 3rd, with Dr. LAURISTON E. SHAW in the chair, when the following resolution was carried, on the motion of Sir R. DOUGLAS POWELL, seconded by Sir JOHN TWEEDY:—

"That it is desirable that concerted action should be taken to check the large amount of gratuitous medical attendance granted to many sections of the community, inasmuch as it tends to diminish the thrift and self-respect of the public, lessens the esteem in which medical science is held, and has a detrimental effect upon the position of many members of the medical profession."

The net result of the two conferences or discussions may be summed up by saying that a very large number of people are relieved annually by the hospitals who have no right to demand or to enjoy such relief, and that this is injurious to the independence of those relieved, to the patients who have a just claim upon the hospitals, to the hospitals, and to the medical profession at large; that measures which should mitigate or annul the evil are capable of being devised (and indeed were foreshadowed at the two meetings mentioned); but that, although the evil exists beyond question and the methods by which it may be met have been formulated to some extent, there are in the way of change practical difficulties of a serious character arising out of the circumstances of the case. These difficulties are due principally to the nature of the sources from which the hospitals draw their incomes, to the views of a certain class of the population not otherwise dependent upon charity which has come to regard its members as proper objects for hospital aid, and to the fact that the evil has arisen gradually, its growth extending over many years. It is obviously not easy to do away suddenly with an existing state of affairs when the proposed reform does not merely consist in a forbidding ordinance but depends for its success upon the goodwill and concurrence of a large section of the community. The difficulty is increased by the position that the persons to be deprived of what they look upon as a perquisite incidental to their existence, or as a right for the enjoyment of which they have paid, and are paying, a consideration, have long held these opinions almost unchallenged.

Whatever may be the views of those who throng the wards and out-patient departments of our hospitals, the first of the principles of hospital management suggested by the Joint Hospitals' Committee should commend itself to all members of the medical profession and to all reasonable laymen: it is "that inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment. This shall not apply to Poor-law cases." The further principles which follow it are for the most part better described as suggestions of methods by which the first principle formulated can be put into practice. These include the abolition of subscribers' letters and the investigation of the circumstances of individual applicants for relief by almoners, the institution

[1] See THE LANCET, Dec. 15th, pp. 1679-80.

of provident dispensaries, and the absolute necessity for coöperation between the hospitals and dispensaries as a condition without which reform is impossible. The alternatives for hospital treatment to be recommended by the almoner are recourse to a medical practitioner, to a public medical service, to the approved provident dispensary, or to the relieving officer under the Poor-law. The principle is also laid down that "there is no objection to pay wards being connected with voluntary hospitals, provided that they are open to every member of the medical profession, who shall be paid any fee to be arranged by him and his patient." The task which lies before those interested in hospitals and their management is no light one and was not treated as such by the meetings to which we have referred. Indeed, if the proposals of the Joint Hospitals' Committee were all adopted at once the ending of the existing system, combined with the initiation of one not only new but also more complicated than its predecessor, would be involved. Subscribers' letters alone constitute a kind of *quid pro quo* to which some charitable people are likely to cling, and all the more so as they may never have abused the power of recommendation which the subscriber's letter affords. In the country the small parish has become accustomed to subscribe by means of its church collection in order to obtain the right to send a parishioner to the hospital, and the squire has found in the hospital letter a manner of bestowing charity convenient to himself and appreciated by its recipients. The treatment given in hospitals involves expense beyond the means of those who in ordinary circumstances would be expected to pay for medical aid and who in any event should be able to contribute towards providing their own treatment. Sir DOUGLAS POWELL observed in moving the resolution quoted above that it will be necessary to establish big provident institutions or to let the present state of things go on; while Sir JOHN TWEEDY suggested, as a possible solution of many difficulties, that a scheme should be arranged whereby the poorer classes should have the advantage without payment, or at a small rate of payment, which their more affluent fellows have at the hands of their private medical advisers. Of one thing there can be no doubt, that a system is wrong which sends patients into the out-patient departments of voluntary hospitals at the rate, according to Sir HENRY BURDETT'S figures, for every 1000 of the population, of 453 in London, of 327 in Edinburgh, and 707 in Dublin. The figures per 1000 at Cardiff and Portsmouth are 122 and 63 respectively but in none of the large provincial towns, of which the figures for 1904 are before us, does the percentage reach that of Dublin, the highest being Newcastle with 518 per 1000. The recourse to charity indicated by such figures is not supported by the poverty of the populations and proves the existence of abuse of the hospitals.

Another point is clear from the perusal of the proposals made by the Joint Hospitals Committee—namely, that in order to carry them out, more particularly at first, a considerable amount of assistance would have to be rendered to the hospitals by organisers and workers needing no medical qualifications. A large amount of voluntary assistance is already rendered to hospitals by laymen who sit on boards of management and who control generally finances to which they themselves are often generous contributors. The post of almoner suggested by the proposals quoted from should be one affording ample scope for the energies of men and women who, not perhaps being able to subscribe largely to hospitals, may be willing to exercise their philanthropic instincts in rendering those hospitals effective as charities and in helping to preserve the independence and self-respect of the thousands of working men and women who now crowd out-patient departments without the qualification of poverty to recommend them. The whole of the question of hospital relief, generally and in detail, is likely to be kept open by discussion during the coming months and, indeed, during the coming years, for it has been resolved that an annual conference shall be held and a committee of 15 has been appointed to act in conjunction with the hospitals committee of the British Medical Association in the matter. The present position of the discussion is best appreciated from the terms of the resolution passed at the United Hospitals Conference, that those present at the meeting "welcomed the further consideration of the principles contained in the proposal." There is no need for us to urge caution and deliberation in the prosecution of reforms which by their nature are incapable of being instituted hurriedly, or of being made universal other than by the coöperation and coördination of a vast number of units with common, but sometimes with competing, interests—reforms, moreover, which need not only the support and approval of the medical profession but also the sympathy and aid of all intelligent and philanthropic laymen.

Annotations.

"Ne quid nimis."

EPSOM COLLEGE.

THE appeal from Mr. Henry Morris, treasurer of Epsom College, which appears in another column, deserves serious consideration. At an outlay of £6000 per annum donations of £30 a year each to 50 aged medical men or their widows are provided and 50 Foundation Scholars are educated, boarded, and clothed, such scholars being the necessitous sons of medical men. £6000 per annum seems a large sum when looked at as a whole, but £6000 divided among the medical practitioners in these islands would simply require a subscription of about 4*s.* a head, and we do not believe that there is any medical man in the three kingdoms who could not afford this sum per annum. No body of men in any class or of any profession is worth helping unless the members thereof are willing to help themselves, and though we are quite aware that many medical men subscribe their guineas, to say nothing of much larger sums, to Epsom College, it should be the aim of every medical man to subscribe something. He never knows from day to day whether his turn may not come to be broken down in health or to be much reduced in income and it might be that the foundation funds of Epsom College would be able to help him. The New Year is close upon us and we hope that every medical man in these islands will send, if not 4*s.*, at least 1*s.*, to the treasurer of Epsom College for the purposes of foundation expenses. In commending this charity to our readers we may state that

any who can make use of a few appeals or prospectuses in bringing the needs of the foundation before well-to-do benevolent persons will be furnished with copies on application to the secretary, Mr. J. B. Lamb, 37, Soho-square, London, W. We cannot do better than conclude in the words used by His Royal Highness the Prince of Wales in the course of his speech at the last festival dinner. He said: "The charitable institutions of our country are among those national characteristics of which we are justly proud; and I can hardly imagine that there are any more deserving of public support than those whose object is to help members of the medical profession or their families who, through misfortune or otherwise, are brought to reduced circumstances."

THE DIGESTIBILITY OF CHRISTMAS PUDDING.

IT is a very common notion that the Christmas pudding is indigestible and yet very little real evidence has been brought forward in favour of this view. A synthetical consideration at all events of the plum pudding would indicate the reverse to be the case. The ingredients are perfectly simple and so far as physiological requirements go are perfectly innocent also. Eggs, fruits, flour or bread crumbs, suet, and sugar are broadly the factors which go to make up the whole and we have yet to learn that any one of these ingredients is objectionable from the point of view of even careful dietetics. In quite special circumstances of course one or more of the components may not be desirable but for the individual enjoying average health the ingredients of the plum pudding should offer no physiological stumbling block. The impression that the Christmas pudding is indigestible has no doubt arisen from the fact that it is generally eaten when already the greater portion of a big meal has been consumed. At a festive time such as Christmas, rightly or wrongly, people are wont to indulge somewhat more freely in the cheer of the table than at other times and, as a rule, the menu is lengthier than usual and the items in it are more pressing in their attractions; in a word, a heavy meal is ventured upon and a correspondingly heavy task is thrown upon the digestive organs. Hence the feelings of fulness and discomfort which are the natural sequence of over-stepping the real needs of the body. It is on such an occasion that Christmas pudding is eaten and it is very generally the pudding that is suspected of having set up gastric disorder or other unpleasant symptoms which, after all, are merely the consequence of over-eating. The correct diagnosis in such a case, in fact, is "too many good things." It is hardly possible to conceive of a more complete food than the Christmas pudding, for a glance at the ingredients shows at once that all classes of food material are abundantly represented. Eggs supply plenty of proteid, suet a sufficiency of fat, and bread crumbs and fruit sugars a generous proportion of carbohydrates. Moreover, most of these carry the further necessaries of human diet—namely, mineral salts. The Christmas pudding therefore contains in quite rich proportion true reparative material of direct nourishing value, heat-producing food-stuffs, and the substances which minister to the mineral needs of the organism. Christmas pudding is thus a meal for the hungry man and not merely a *bonne bouche* for him who, by the time the pudding has come to table, has already eaten enough of other strong foods. After all, the procedure connected with the preparation and cooking of a plum pudding is physiologically sound. Submitted to boiling, or, what is better, as we understand from a very good authority on the practical side of the subject, to steaming, the first effect is, of course, the coagulation of the egg albumins on the surface of the pudding, with the formation of an insoluble veneer which serves to prevent the fruit juices and the sugar and fat escaping, besides, no doubt, conserving the combined flavours. Much the same process occurs in roasting meat and the only satisfactory way of roasting meat is to expose it to the direct action of the radiant heat of the open fire, but in this case a coat of meat albumin is formed which keeps the nourishing juices within. Christmas pudding is commonly boiled for several hours and is boiled perhaps several times, according to the appearance of things in the judgment of the experienced cook. The result is a complete breaking down of starchy and other matters into a soluble state and the rendering of other constituents soluble and probably digestible which otherwise might be indigestible. Flavour is occasionally augmented by the addition of brandy or of sherry and it is just possible that the pudding may be slightly alcoholic in spite of the volatile nature of spirit, for it would be difficult to drive the alcohol entirely out of a mass practically inclosed in an albuminous envelope. Such additions, however, are not really necessary. The fact is that Christmas pudding is eaten at the wrong moment—that is to say, when already a sufficient, not to say excessive, quantity of food has been taken, for it affords a complete and easily digestible meal by itself. This fact that it is so often eaten when it is really a superfluity has brought upon Christmas pudding words of reproach which it never deserved. If sparely eating (and drinking) were made a rule in life dyspeptic disorders would be diminished considerably and we should hear less of the need of special diets and the avoidance of this, that, and the other items. Over-feeding is probably a much more fertile source of disease and death than is starvation, and food immoderately indulged in accounts more for the prevalence of toxic symptoms than do ordinary poisons.

REMEDIES NEW AND OLD.

IN a lengthy review of recent pharmaceutical progress, which is published in the *Bulletin des Sciences Pharmacologiques*, vol. xiii., No. 9, Dr. B. Moreau makes some interesting observations with regard to the newer synthetic remedies, comparing them with drugs of proved utility. He points out that of the numerous new preparations which have been brought before the medical profession during the past year none has achieved great success, whilst the majority of those which have been produced in recent years are now forgotten. Indeed, the extreme abundance of new remedies — panaceas to-day, failures lapsing into obscurity to-morrow—seems to have caused a return to favour of the older chemical and vegetable remedies. These usually have a definite and known composition, they are easy to obtain and to control, and their value has been proved by many years of clinical experience. Dr. Moreau believes that this tendency will continue to be in evidence because many synthetic remedies have the great inconvenience of inconstancy of composition, varying with every manufacturer and sometimes varying with different batches made by the same manufacturer. Most of these synthetic preparations are highly complex in structure, a fact which accounts for great variation in composition. In such cases a slight amount of impurity may greatly modify the therapeutic properties of the drug. Dr. Moreau's remarks will doubtless be endorsed by many practitioners in this country, since illustrations of his observations on synthetic remedies are frequently met with. At the present time sodium salicylate affords a conspicuous example. This salt has been much used for many years for lowering the temperature, but during the present autumn many complaints have been made by medical practitioners that they are unable to obtain a lowering of the temperature with commercial sodium salicylate. Unfortunately the drug exists in commerce in several forms.

including the ordinary salt prepared from synthetic salicylic acid and the natural salt prepared from the oils of wintergreen and sweet-birch. The synthetic salicylic acid is liable to vary in composition with the degree of purity of the phenol from which it is manufactured. It was formerly prepared by Kolbé's patented process, but numerous modifications, all of them intricate, are now employed. As a result, varying conditions of temperature alone are sufficient to yield varying products, and when allowance is made for degrees of skill on the part of the actual manipulators, it is easy to understand the possibility that exists for different impurities to find their way into the finished product. It is obvious that the pharmacopœial requirements as to the purity of this substance need amendment, so as to insure a supply of sodium salicylate of uniform composition and of assured potency. One valuable method of testing the salt consists in recovering the salicylic acid and determining its melting point. In this way, for example, the presence of the three cresotic acids, homologues of salicylic acid of different physiological value, may readily be detected. Our supplies of the drug are largely manufactured on the continent, a state of things which should no longer be allowed to exist by British chemical manufacturers.

DIRECT TRANSFUSION OF BLOOD IN THE TREATMENT OF HÆMORRHAGE.

TRANSFUSION of blood is seldom performed nowadays. Doubtless the reason is the success attending the much easier operation of saline injection. In the *Journal of the American Medical Association* of Nov. 3rd Dr. Crile has published an important paper on the subject. He made a series of experiments on animals and found that the best method of transfusion was to anastomose the proximal end of an artery of the donor to the proximal end of a vein of the donee. He proved that if a dog be bled to the last drop an equal amount of blood transfused from another dog will form a perfect substitute for the blood lost. Having performed every experiment that could have a clinical bearing Dr. Crile put his conclusion to the test in the following case. Four large stones were removed from the kidney of a man, aged 23 years, where they had caused infection. The wound formed by bisecting the kidney was packed with gauze. On opening the kidney there was considerable hæmorrhage, but this was readily controlled. On the fourth day blood oozed through the dressings and there was hæmaturia. This continued till the following morning in spite of all measures. In the evening the patient's condition was alarming. The pulse was 160 and barely perceptible, the respirations were 48 and gasping, and the patient was unconscious. The hæmoglobin was reduced to 25 per cent. and the red corpuscles were reduced to 1,800,000. Treatment by posture, bandaging, saline infusion, stimulants, repacking, and adrenalin was of no avail. Here was a crucial test of the value of transfusion. The patient's brother was a willing donor. Under local anæsthesia anastomosis was made between the proximal end of his radial artery and the proximal end of the patient's basilic vein and blood was allowed to flow steadily for 30 minutes. The patient promptly recovered consciousness, the pulse- and respiration-rates fell, the blood pressure rose from 63 to 94 millimetres of mercury, the hæmoglobin rose to 50 per cent. and the red corpuscles to 2,900,000. In the donor the hæmoglobin fell from 100 to 70 per cent. and the red corpuscles from 5,500,000 to 4,600,000. The patient's condition was so good that the original intention of performing nephrectomy was carried out under ether. In spite of difficulties in removing the kidney he bore the operation well. On the next morning his condition was unsatisfactory in consequence of decomposing clots filling the bladder. Under cocaine suprapubic cystotomy was performed and foul urine and clots were removed. Total suppression of urine followed but passed off during the night. He improved and after two weeks the greater part of the lumbar wound had healed but severe cystitis continued. Then profuse hæmorrhage from the bladder occurred and continued for two days in spite of treatment. The red cells fell to 1,900,000 and the hæmoglobin to 25 per cent. The pulse rose to 130 and the patient's condition was critical. Another brother served as donor for a second transfusion and the patient immediately improved, the red cells reaching 3,000,000 and the hæmoglobin 54 per cent. Recovery was then uninterrupted. Transfusion was performed in two cases of hæmorrhage in typhoid fever. One patient was dying but he recovered consciousness and lived till the following day, when another hæmorrhage proved fatal. The other patient, who was very low, survived further hæmorrhages but died later. In two other cases—secondary renal hæmorrhage following nephrolithotomy and bleeding from hæmorrhoids—transfusion was successful. In these six cases the donors regained the lost blood in from five to seven days and refrained from work only on the day of transfusion. The donees showed no nephritis, hæmoglobinuria, laking of the blood, or other evidence that the new blood acted in any way unfavourably. Thus the conclusion reached experimentally was confirmed clinically: the healthy blood of one individual is physiologically interchangeable with that of another.

HOSPITAL ISOLATION OF SCARLET FEVER IN STAFFORDSHIRE.

IN a recent annotation we called attention to the statistics of scarlet fever mortality and hospital isolation in London. With a view to the further consideration of the effect of hospital isolation of this disease upon its prevalence and fatality it may be useful to note a few facts relating to this subject derived from the last report of the medical officer of health (Dr. George Reid) of the county of Stafford. This administrative county includes 56 sanitary districts, of which 38 are urban and 18 rural; the population of these sanitary districts in the middle of last year was estimated at 932,018. The number of cases of scarlet fever notified during last year within the county was 3242, equal to 3·5 per 1000 of the population; in London the proportion of notified cases of this disease last year was 4·2 per 1000. The deaths from scarlet fever in Staffordshire were 102, and fewer by 59 than the number in the previous year; they were equal to a rate of 0·10 per 1000, the death-rate in London from the same disease being 0·12. These 102 deaths in Staffordshire were in the proportion of 3·1 per cent. of the notified cases; in London this proportion did not exceed 2·8 per cent. It appears from Dr. Reid's report that of the 3242 notified cases of this disease within the county 879 received hospital treatment, showing a proportion of 27·1 per cent., whereas in London 88·6 per cent. of the notified cases were so treated; in the 38 urban districts of Staffordshire the proportion of hospital treatment to notifications was only 21·0 per cent., whereas in the 18 rural districts 52·7 per cent. of the notified cases were so treated. In 14 of the urban districts, containing an estimated population of 271,439, not one of the 990 notified cases of scarlet fever was treated in hospital, while in the 24 other urban districts 33·8 per cent. of the notified cases were so treated, against 52·7 per cent. in the 18 rural districts and 88·6 per cent. in London. It should be noted that the case-mortality of scarlet fever last year in the 24 Staffordshire urban districts in which 33·8 per cent. of the cases were treated in hospital did not exceed 2·7 per cent., whereas in 14 urban districts in which no case received hospital treatment it was equal to 3·3 per cent.; in London the proportion of deaths to notified cases was, as stated above, 2·8 per cent. These figures suggest the beneficial effect of hospital isolation and treatment of cases of scarlet fever;

case-mortality, however, is probably primarily dependent upon the varying type of the disease which may locally prevail. The provision of additional hospital accommodation for the isolation and treatment of epidemic diseases in Staffordshire is in progress, but it is evident that such existing accommodation is not fully turned to account where it is available. The use made of existing isolation hospitals varies very considerably in different sanitary districts within the county, and Dr. Reid notes in his report that "in most cases it is evident that they can be of little practical value in curtailing epidemics—the chief purpose for which they are intended." It is much to be desired that other county medical officers should include in their reports statistics relating to the hospital isolation and treatment of epidemic diseases similar to those given by Dr. Reid for Staffordshire, which would materially assist in the formation of a trustworthy estimate of the beneficial effect of this branch of public health organisation.

THE SKIDDING MOTOR CARRIAGE.

IN two more cases since our last reference to the subject county-court judges have expressed the opinion that the owners of motor omnibuses are liable for damage done through "skidding" without evidence of any definable act of negligence on the part of the driver. In one of these Sir William Selfe observed that "these machines were permitted on the streets while they were in an experimental state, and although regulations had been drawn up with regard to noise, smell, and vibration nothing seemed to have been done with regard to the much greater danger of skidding." In the case before his honour there seems to have been evidence of negligence, but he went on to say that, apart from this he would have been prepared to hold the defendants responsible on the ground of "nuisance" for "putting a conveyance on the public thoroughfares which was admittedly uncontrollable under certain conditions." In the other case referred to his honour Judge Willis said that "people must put vehicles on the road that would not skid, and if they could not do that they must withdraw motor omnibuses from use." In both these instances damage to property, not to human beings, was the subject of the action, the former being the claim of the Metropolitan Railway Company for the breaking down of a lamp-post outside its station at Edgware-road. The falling lamp-post is so dangerous and so frequent a result of the vagaries of the motor omnibus that a return of the number so broken during the past year would be of public interest.

TUBEROSE SCLEROSIS OF THE BRAIN.

IN our issue of Dec. 8th, p. 1583, there appeared a description by Dr. Margaret B. Dobson of a case of epileptic idiocy associated with tuberose sclerosis of the brain which serves to call attention to an interesting and little-known pathological condition practically never met with outside asylum work and but rarely found even in that sphere. The case referred to was that of a "low-grade idiot" who died at the age of ten years from the combined effects of epilepsy and pneumonia. At the post-mortem examination there were discovered in the brain a number of what are described as "white, granular-looking, and exceedingly hard areas." Under the designation "sclérose hypertrophique" Bourneville in 1880–81 gave an account of similar cases in the *Archives de Neurologie* and he has since added other instances, but his cases exhibited also certain changes in the kidneys to which no allusion is made in Dr. Dobson's paper. It is, however, noted in the paper that the child "suffered from the somewhat rare skin affection known as adenoma sebaceum," though no special stress is laid on this fact. Dermatologists have for a long time been aware of a relationship between adenoma sebaceum and low mental development and Dr. Dobson's observation is noteworthy as conforming to this experience, but it has apparently a still wider application. We have received from Dr. E. B. Sherlock a report printed for private circulation on a series of 16 cases of adenoma sebaceum collected by him from the records of Darenth Asylum. From this it seems probable that the case mentioned in our columns is an example of a definite pathological entity for which Dr. Sherlock suggests the name "anoia" and which presents in its fully developed form the following striking characteristics: (1) idiocy with severe epilepsy; (2) adenoma sebaceum; (3) tuberose sclerosis of the brain; and (4) new growths in the kidneys.

THE TREATMENT OF WOUNDS AND BURNS BY EXPOSURE TO INTENSE HEAT.

IN *La Semaine Médicale* of Oct. 24th Dr. E. Asbeck describes a method of treating wounds and burns which he has employed in over 500 cases during the last five years with uniform success. The wound or burn is first dressed in the ordinary way with sterilised iodoform gauze, a pad of wool, and a bandage. It is then exposed to a source of intense heat, such as a kitchen fire, for about half an hour or until the dressing is rendered perfectly dry. In the case of small wounds the heat from an ordinary Bunsen burner is sufficient. Dr. Asbeck has found that this mode of treatment induces rapid healing without setting up complications. He was led to adopt it from observations made in the tropics of the accelerating action of the intense heat of the sun on the healing of wounds. Exposure to heat from the boiler on a steamboat has the same effect.

MEAT INSPECTION AT THE CENTRAL MARKETS.

WE have received a copy of the report of the medical officer of health of the City of London (Dr. W. Collingridge), in which he deals with the questions discussed by the Court of Common Council in June last as to the sufficiency of the present inspection of food at the Central Markets and whether any, and if so what, alterations are necessary or desirable in reference thereto. Dr. Collingridge points out that of the plans adopted for the detection of unsound meat that of individual carcass inspection—i.e., inspection of every animal at the time of slaughter with all its organs, preferably at public abattoirs—is the only one that affords complete protection for the public, as no inspection can be deemed entirely satisfactory unless the organs are available for examination. As a matter of fact, the "detective system"—i.e., inspection after slaughter and when exposed for sale—has perforce to be relied upon in the City. Legislation would be required for the enforcement of the inspection of the carcass together with the organs. Inspection on arrival in the market or on exposure for sale is sufficient to deal with the question of decomposition or unsoundness but not with that of disease. By far the largest proportion of meat seized in the City is condemned on account of putridity. Thus of the 2128 tons of meat condemned in 1905 no less than 88·4 per cent. was putrid, 3·7 per cent. was unwholesome through injury during life or other causes, and only 7·9 per cent. is recorded as being diseased. With regard to the quality of foreign consignments, much of the meat is marked with a label that professes to indicate that it has been subjected to a proper inspection before export to this country. Salesmen, however, have learned by experience that they can best consult their own interests by not relying upon the label in the case of meat imported from the United States as a guarantee that they can safely offer the meat for sale to the same extent

that they can upon most of the meat labelled by the Dutch, Danish, and New Zealand authorities. It is to be hoped that the new regulations with regard to meat inspection which the public are assured are to be introduced shortly into the United States, will inspire the same confidence in the American label as in that of the other countries just mentioned. The Belgium label is of no value as an indication of freedom from tuberculosis, owing to the difference in the standards adopted in Belgium and in this country. In regard to frozen boneless meat packed in boxes which comes from America Dr. Collingridge says that no inspection can be of any real value in dealing with this particular form of meat and the only safe plan is to exclude it entirely from the country. Lastly, he expresses the opinion in considering the whole question that the Government should be urged to deal with it by the creation of an efficient system of inspection of food animals at the time of slaughter and that the corporation should proceed forthwith to strengthen its staff of inspectors so as to enable the latter more efficiently to cope with the steadily increasing amount of work devolving upon it. The report recommends the appointment of three assistant inspectors of meat on probation who during their training should be required to obtain within two years the certificate necessary under the Public Health Act (London), 1891, and also that granted by the Royal Sanitary Institute qualifying for meat inspection. On their obtaining these certificates it is suggested that they should be entitled to become candidates for permanent positions as inspectors of slaughter-houses and meat.

THE POSTURAL TREATMENT OF OTITIS MEDIA AND MASTOIDITIS.

IN the *American Journal of the Medical Sciences* for November Dr. A. E. Schmitt has called attention to the value of one of the fundamental principles of surgery—drainage—in the treatment of otitis media and mastoiditis. The application of this principle seems to be overlooked, so that operative methods are sometimes adopted in cases in which conservative treatment would have succeeded. The anatomical relation of the middle ear and antrum is such that when a patient lies on his back inflammatory secretions will flow by gravity from the former into the latter, producing mastoiditis. To secure drainage of the middle ear and antrum the patient should be placed so that the antrum is higher than the middle ear and the middle ear higher than the Eustachian tube, its natural outlet. This position is obtained when the patient lies face downwards, the forehead and one cheek supported by pillows, the nose, the mouth, and one eye being free. Dr. Schmitt finds that when the patient realises the importance of this position he adopts it by preference as a comfortable posture during sleep. If otitis media alone exists the secretion will drain through the Eustachian tube, if it is not clogged, or through a perforation in the membrana tympani, if such exists. This will prevent extension to the antrum. If the antrum is already involved the secretion will flow from it into the middle ear and out as just stated, enabling recovery to take place. Dr. Schmitt finds that even though there be tenderness and œdema over the mastoid these symptoms will subside and an operation become unnecessary. The other treatment adopted by him consists in giving a purgative to relieve the congestion and treating the rhinitis or pharyngitis which caused the otitis, special attention being directed to the Eustachian tube and nasopharynx. The patient is directed to produce suction in the tube by swallowing water with the mouth and nose closed several times daily. If these measures do not give relief paracentesis tympani is performed. An incision is made in the membrana tympani downwards from the tip of the handle of the malleus and a second incision posteriorly from the middle of the first curving downwards and forwards, forming a flap and giving a free opening large enough for the introduction of a cannula for irrigating the middle ear. Mild antiseptics are introduced by catheter into the Eustachian tube. The patient douches the external meatus at frequent intervals and retains the prone position for the greater part of the time between the irrigations. Dr. Schmitt also orders half a gallon of some alkaline water to be taken daily, which he thinks thins and increases the flow of the discharge and prevents crusting. In several cases in which otologists recommended immediate operation this more conservative treatment proved successful. Of the measures used Dr. Schmitt attaches the greatest importance to posture.

POISONOUS PLUGS IN INFANTS' FEEDING BOTTLES.

WE have received from Mr. F. A. Pond an interesting communication in which he ascribes the lead poisoning of certain infants who came under his care to the presence of lead in the rubber plug of the feeding bottle. In three cases the most marked symptom was evidently, he says, abdominal pain causing a deal of straining, drawing up of the legs, and crying. The fourth case was one of profuse diarrhœa with offensive odour, the temperature was 102° F., the pulse was thready and rapid, and there was very early collapse, resulting in death a few days after the child was seen. A sign noticed in all cases was a narrow bluish punctuated line on the edge of the gum of the lower jaw. All the babies were being fed from the same pattern feeding-bottle fitted with a pure rubber teat and a dull black-coloured plug or valve. The cavity in one of the plugs was filled with malodorous decomposed clotted cream and had evidently been used in this foul condition for days. The baby using this plug was the one that died. The others recovered after the removal of the plugs. The lines remained on the gums for weeks. Mr. Pond found that these black rubber plugs were made with lead. We submitted one of the plugs which Mr. Pond kindly sent to us to analysis with the result that we found it to contain no less than 5·77 per cent. of lead with 1·16 per cent. of copper. The plug weighed just under 50 grains, so that the actual quantity of lead present estimated as metal was 2·88 grains and of copper, also estimated as metal, 0·58 grain. The plugs in the feeding bottles were very sticky, adhering to everything they touched and blackening the fingers. It is, therefore, easily conceivable that the lead would contaminate the milk and be imbibed by the child. Dirty conditions apart, which alone may quickly render milk septic and thus account for the onset of diarrhœa of the kind described, the use of lead and copper compounds in any part of a feeding apparatus is highly reprehensible. The casual ways of some manufacturers are simply monstrous.

EXHAUST VENTILATION IN FACTORIES AND WORKSHOPS.

THE Chief Inspector of Factories has issued a memorandum in which it is pointed out that for the purpose of carrying out exhaust ventilation for the removal of injurious dust and fumes it is essential to apply the exhaust so that the dust or fumes shall be carried away at, or near to, the point of origin and not be allowed to diffuse in the air of the room. Further, the installation should be carefully planned with regard to the particular circumstances of each case. While great advances have been made in this direction in recent years, it is often found,

it is added, that owing to misapprehension of the conditions of the problem ineffective installations have been provided at considerable cost. It has been deemed advisable, therefore, to help manufacturers and others concerned by bringing together for their information a number of well-planned installations which have been found in practice to secure satisfactory results. These examples have been published in book form which may be obtained directly or through any bookseller or the publisher of Government documents. The illustrations of the effectual methods of dust extraction have been compiled by Commander Sir H. P. Freer Smith, R.N., late H.M. Superintending Inspector of Factories.

GRESHAM LECTURESHIP ON PHYSIC.

ON p. 77 of the advertisement pages of the issue of THE LANCET of Dec. 15th there appeared an advertisement from the Gresham committee, Mercers' Hall, Cheapside, dealing with the qualifications necessary for candidates applying for the lectureship. We are now informed that the qualifications have been altered. There is now no limit of age, and candidates may be either Doctors of Medicine of some university of Great Britain or Ireland or Fellows of the Royal College of Surgeons. An amended advertisement appears in the current issue.

ICED-WATER ENEMATA IN THE TREATMENT OF SUNSTROKE.

IN the *Journal of the Royal Army Medical Corps* for December Captain M. F. Foulds, R.A.M.C., has called attention to a little known treatment for sunstroke suggested to him by Captain W. A. Heppolette, Indian Subordinate Medical Department—namely iced-water enemata. In Jhansi, India, in 1903 he saw his first cases of sunstroke, which were all of the same type. The thermometer ranged from 105° to 115° F. in the shade. Nine men were taken into hospital unconscious and with deep and stertorous breathing, dry burning skin, rapid pulse, and a temperature of from 107° to 110°. They were stripped and put to bed in the shade. One attendant poured water over them, as cold as could be obtained, and two others rubbed the body with ice. An enema of about a quart of iced water was given every ten minutes until the axillary temperature fell to 102°. The back of the neck was blistered. All the patients recovered and Captain Foulds thinks that they owed their lives to the use of the enemata. Six other men were taken into hospital drowsy and complaining of pains in the head and dizziness and with temperatures varying from 103° to 105°—i.e., with all the prodromata of sunstroke. They were treated with iced-water enemata and left the hospital quite well on the following morning. Captain Foulds advocates this treatment of sunstroke on the grounds that when a person is hot and wants to cool himself he takes an iced drink. The patient suffering from sunstroke is generally unconscious or nearly so, and it is much easier and safer to administer iced enemata than to wash out the stomach with iced water. Professor W. Osler advises packing the patient in a bath of ice and says that iced-water enemata may also be administered. Sir Patrick Manson advocates only the external application of cold. Captain Foulds points out that in India ice is not issued in such quantity as to enable every patient suffering from sunstroke to be packed with ice and that it takes very little ice to cool a quart enema. The statistics of sunstroke in India show a high mortality. In 1900 174 patients suffering from sunstroke were admitted into hospital, of whom 40 died; in 1901 157 were admitted and 37 died; in 1902 171 were admitted and 46 died; and in 1903 307 were admitted and 54 died. When these results are compared with those of Captain Foulds his claim that if the treatment advocated by him were better known the mortality of sunstroke would be diminished seems to be reasonable. He also makes the suggestion that the treatment might prove useful in hyperpyrexia, such as occurs in rheumatic and scarlet fever and tetanus.

THE PREVENTION OF THE BACTERIAL CONTAMINATION OF STREAMS AND OYSTER BEDS.

IN a paper read under the auspices of the Society of Engineers at the Royal United Service Institution on Dec. 3rd Mr. W. Pollard Digby and Mr. Henry C. H. Shenton discussed the prevention of the bacterial contamination of streams and oyster beds by means of hypochlorite solutions obtained by the electrolysis of salt. It is now well known that the effluents from sewage farms, as well as those from artificial purification processes, septic tanks, contact beds, and so on, usually contain large numbers of micro-organisms, many of which appear to be derived from the human intestinal canal. Dr. A. C. Houston in his report to the Royal Commission on Sewage showed that the organism bacillus pyocyaneus, when added in large numbers to sewage, passed freely through a septic tank and continuous filter about 10 feet deep. Dr. Houston observed in connexion with this result that "with the advance of knowledge it is possible that some method of sewage treatment may be devised by which, within reasonable limits of cost, the dangerous qualities of the sewage may be wholly eliminated; but the treatment of sewage according to methods at present in use cannot be relied on so to alter its character as to allow of its discharge in the immediate neighbourhood of shell-fish layings without incurring appreciable risk of disease being communicated by the consumption of shell-fish taken from such layings." These dangerous qualities, in the opinion of the writers of the paper referred to, may be wholly eliminated within reasonable limits of cost by treating the chemically pure effluent with a very dilute solution of sodium hypochlorite electrolytically prepared. The process, they maintain, is economical, scientific, and effective bactericidally. The practical application of hypochlorite solution to sewage effluents appears at all events to be quite simple, but we do not gather whether Mr. Digby and Mr. Shenton have investigated the question of the action of an accidental excess it may be of hypochlorites on river life or fishes. The active chlorine compound which "finishes" the sewage effluent may possibly finish also, we suggest, the fish and other life in the stream if any distinct excess of hypochlorite escaped, a result which would clearly be undesirable.

THE Employment of Barmaids Bill recently introduced into the House of Commons by Mr. Gooch, M.P. for Bath, is the Bill drafted last spring in conjunction with the Bishop of Southwark for introduction into the House of Lords, but then deferred largely on the advice of Lord Peel. It places no legal limit of time to the employment as barmaids of any women who are already such. Mr. Gooch's pamphlet, "The Barmaid Problem," published in 1903, has been largely circulated.

THE King has given to Mr. Kenneth Mackenzie Scott, M.D. Edin., F.R.C.S. Edin., His Majesty's Royal licence and authority to accept and wear the Insignia of the Fourth Class of the Imperial Ottoman Order of the Osmanieh, conferred upon him by His Highness the Khedive of Egypt.

A TELEGRAM from the Governor of the Mauritius received at the Colonial Office on Dec. 14th states that during the

week ended Dec. 13th there were 23 cases of plague and 13 deaths from the disease.

Dr. T. D. Acland has been appointed, by the Royal Colleges of Physicians of London and Surgeons of England, Official Visitor to the examinations of the Cairo Medical School.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

MEETING OF THE GENERAL COUNCIL.

A MEETING of the general council of this Fund was held at Marlborough House on Dec. 17th for the purpose of awarding grants to the hospitals and convalescent homes for the year 1906, H.R.H. the PRINCE of WALES being in the chair.

Lord ROTHSCHILD reported that the amount received to Dec. 12th, after payment of expenses, was £89,915, and in addition legacies to the amount of £35,000 had been declared but not paid.

Sir HENRY BURDETT reported that the contribution from the League of Mercy would be £18 000.

Mr. HUGH C. SMITH read the report of the Executive Committee to the General Council as follows: The Executive Committee recommend this year the distribution of £110,000 o the London hospitals, making, with the £1000 entrusted to the Fund by the London Parochial Charities for the convalescent homes, a total distribution of £111,000. At the time of determining the amount for distribution legacies of £35,000 had been announced but not paid, and it was impossible to say whether they would be received before Dec. 31st or not. The committee, however, have no doubt that, having regard to the average receipts from legacies and to the amount carried forward last year, the sum of £111,000 can safely be distributed.

Sir WILLIAM S. CHURCH read the report of the Hospitals Distribution Committee which stated—

1. The committee have the pleasure to report that, with the approval of His Royal Highness the President, the sum of £110,000 was placed in their hands for distribution this year amongst the London hospitals, as against £100,000 in 1905.

2. The number of hospitals applying for grants is 105, as against 106 last year, five having fallen out and four new applications having been received.

3. The committee are pleased to learn that the City Orthopædic Hospital has now agreed to amalgamate with the Royal National Orthopædic Hospital and that the arrangements are in course of being carried out. The sum of £250, voted conditionally last year to the City Orthopædic Hospital, remains in hand and to this the committee have added £250, so that the assets of the hospital to be pooled on amalgamation will be increased by £500.

4. In regard to the throat, nose, and ear hospitals, the committee are informed that the negotiations for amalgamation are proceeding. Towards this object the distribution committee, on the advice of the committee appointed to deal with the matter, have set on one side £1000 instead of making separate grants to each hospital. This grant is in addition to the considerable sums already promised by the Fund.

5. The sum of £4800 voted towards the removal of King's College Hospital to South London increases the total amount contributed by the Fund to this object to £16,000.

6. The committee have this year continued the policy begun in 1905 of making exceptional grants in a few special instances. These amounts will be regarded in the nature of advances and will, of course, be taken into consideration in the future. The exceptional grants are £5000 to the Hampstead General Hospital to enable it to take advantage of a conditional offer of £20,000 and £4800 to the Mount Vernon Hospital for Consumption to extinguish their debt on the buildings, which are now completed.

7. The committee recommend that grants made towards specified objects, such as buildings or other improvements, should in future be retained by the Fund until required. Several cases have been brought to the notice of the committee where large sums which have been granted in this way still remain unexpended. It seems desirable that some limit should be placed on the length of time during which such grants should be allowed to remain unexpended and that they should be reconsidered every two years while they remain unapplied.

8. It will be seen that, in accordance with the committee's recommendation last year, the distinction between annual grants and donations has been abolished.

9. The attention of the committee has been called to the extensive arrangements for teaching nursing at hospitals; and, while not wishing in any way to disparage work so obviously advantageous to the public, it may become necessary to consider to what extent expenditure is incurred for nursing beyond the requirements of the nursing service of each hospital.

10. The subject of overbuilding, especially by institutions which are already unable to maintain their existing beds, has been considered by the committee. They observe that the council in 1903 sanctioned the following resolution of the Executive Committee: "That in future any new hospital or those reconstructing or extending to a considerable extent within the area dealt with by the Fund be requested before taking definite action to submit their proposals to the Fund." The committee recommend that the full purport and intention of this resolution should be brought this year to the notice of the hospitals.

11. The reports of the visitors have as usual received the careful consideration of the committee and have been of the utmost value.

12. The committee are pleased to observe considerable reduction in the cost per bed in a number of hospitals where the expenditure was formerly considered too high. Though much still remains to be done, the committee commend to public attention the general efforts being now made by the hospitals in the direction of economy.

13. In addition to their published remarks the committee have followed and extended their usual practice in recommending that various suggestions, including many from the visitors' reports, should be made privately to some of the hospitals.

Sir SAVILE CROSSLEY presented the following lists of awards:—

LISTS OF AWARDS.

The Distribution Committee desire to draw attention to the fact that the absence of a grant does not necessarily imply dissatisfaction:—

Alexander Hospital for Children.—£500, of which £100 for structur improvements.

Belgrave Hospital.—£1250, of which £750 to reduce debt.

Billingsgate Mission Hospital. No grant. The committee cannot view with approval the conversion of a dispensary into a hospital in a neighbourhood already well served with other institutions.

Blackheath and Charlton Cottage Hospital.—£75.

Bolingbroke Hospital.—£2500, of which £2250 to building fund.

British Lying-in Hospital.—£300, of which £100 to reduce debt.

Cancer Hospital.—No grant.

Central London Ophthalmic Hospital.—No grant.

Central London Throat and Ear Hospital.—See paragraph 4 of report.

Charing Cross Hospital.—£2750. The committee make this grant in view of the new management. They, however, call attention to the fact that in adding 40 beds to those already in use the former management seemed to ignore the fact that when there were in the hospital 40 fewer beds than there now are its income failed to meet its expenditure.

Chelsea Hospital for Women.—£400.

Cheyne Hospital for Sick and Incurable Children.—£75, in consideration of the fact that some curable cases are admitted.

City of London Hospital for Diseases of the Chest, Victoria-park, E.—£2250.

City of London Lying-in Hospital.—£1000, for building.

City Orthopædic Hospital.—£250. The committe are glad to know that the hospital has now agreed to amalgamation, and £250 has been voted this year and added to the similar sum voted last year and retained in hand. This is in addition to the amount previously voted as the basis of the amalgamation scheme.

Clapham Maternity Hospital.—£100.

Dreadnought Hospital.—£3000, of which £2000 to improvements. The committee view with satisfaction the economical management of this hospital.

East End Mothers' Home.—£300.

East London Hospital for Children.—£2000, of which £1000 to improvements.

Eltham and Mottingham Cottage Hospital.—£50.

Evelina Hospital.—£1100, of which £1000 to out-patient department.

French Hospital.—£200.

Friedenheim Hospital.—£50.

General Lying-in Hospital.—£150.

German Hospital.—£200.

Gordon Fistula Hospital.—£25.

Great Northern Central Hospital.—£1500.

Grosvenor Hospital for Women and Children.—£200.

Guy's Hospital.—£8000. The committee view with satisfaction the continued economical management.

Hampstead General Hospital.—£5000, to enable the hospital to take advantage of a conditional offer of £20,000 to complete the new building, for the maintenance of which continuous efforts to increase the annual revenue will be necessary.

Home and Infirmary for Sick Children.—£200, of which £50 towards building.

Home for Consumptive Females.—No grant. The committee consider that this home does not come within the description of a hospital as understood by the Fund.

Hospital for Consumption.—£2500. The committee view with satisfaction the large reduction in the expenditure per bed.

Hospital for Diseases of the Throat.—See paragraph 4 of the report.

Hospital for Epilepsy and Paralysis.—£450.

Hospital for Invalid Gentlewomen.—£200.

Hospital for Sick Children.—£1500.

Hospital for Women.—£3000, of which £2000 to building fund.

Hospital of St. John and St. Elizabeth.—£500.

Infants' Hospital.—The committee do not regard this institution as a hospital in the sense accepted by the fund.

Italian Hospital.—£500.

Kensington Dispensary and Children's Hospital.—£25.

Kensington General Hospital (late Queen's Jubilee Hospital).—No grant.

King's College Hospital.—£6000, of which £4500 to removal fund.

London Fever Hospital.—£150.

London Homœopathic Hospital.—£500.

London Hospital.—£8500. The committee view with satisfaction the considerable reduction in the cost per bed.

London Lock Hospital.—£1500, of which £1000 to nursing accommodation. The committee will be prepared to recommend a substantial grant towards the expense of rebuilding the Dean-street Hospital when a definite scheme has been prepared.

London Temperance Hospital.—£1500, of which £1000 to out-patient department.

London Throat Hospital.—See paragraph 4 of report.

Maternity Charity and District Nurses' Home, Plaistow, E.—£50.

Medical Mission Hospital (formerly entered as Cottage Hospital, Canning Town), Balsam-street, Plaistow.—£250, towards debt.

Memorial Cottage Hospital (Mildmay Park).—£50.

Metropolitan Hospital.—£2000. The committee are pleased to see the successful efforts being made to reduce expenditure.

Middlesex Hospital.—£3000. The committee are pleased to see the substantial economies effected during the period the wards were not closed for repairs.
Mildmay Mission Hospital.—£300.
Miller Hospital (Greenwich).—£1250, of which £500 to extension.
Mount Vernon Hospital for Consumption (formerly entered as North London Hospital for Consumption).—£4500, as a special donation this year in order to close the building debt.
National Anti-Vivisection Hospital.—No grant.
National Dental Hospital.—£50, to reduce debt.
National Hospital for the Paralysed and Epileptic.—£1750, of which £1000 to reduce debt.
New Hospital for Women.—£500.
North-Eastern Hospital for Children.—£1500, of which £500 to reduce debt. The committee are pleased to see that economies have been effected.
North-West London Hospital.—£500.
Norwood Cottage Hospital.—£50, towards improvements.
Oxygen Hospital.—No grant.
Paddington Green Children's Hospital.—£400.
Passmore Edwards' Acton Cottage Hospital.—£50.
Passmore Edwards' East Ham Hospital.—£50.
Passmore Edwards' Hospital for Willesden.—£25.
Passmore Edwards' Cottage Hospital, Wood Green.—No grant.
Poplar Hospital.—£500. The committee are glad to see the reduction in the total expenditure.
Queen Charlotte's Lying-in Hospital.—£570.
Royal Dental Hospital of London (formerly entered as Dental Hospital).—£500.
Royal Ear Hospital.—See paragraph 4 of report.
Royal Eye Hospital.—£400.
Royal Free Hospital.—£2750.
Royal Hospital for Diseases of the Chest, City-road.—£400.
Royal London Ophthalmic Hospital.—£3000. The committee consider that this hospital should receive more support from the public and they trust that increased efforts will be made to secure such support.
Royal National Orthopædic Hospital.—£1500; as agreed, upon satisfactory completion of amalgamation of the two hospitals. The committees are glad to learn that amalgamation with the City Orthopædic Hospital may now be considered as assured.
Royal Waterloo Hospital for Children and Women.—£1500; of which £1500 to building debt.
Royal Westminster Ophthalmic Hospital.—£100.
St. George's Hospital.—£2000.
St. John's Hospital for Diseases of the Skin.—£100.
St. John's Hospital, Morden-hill, Lewisham, S.E.—£100.
St. Luke's House.—£25.
St. Mark's Hospital.—£100.
St. Mary's Hospital, Paddington.—£3500. The committee are pleased to see the considerable reduction in expenditure per bed.
St. Mary's Hospital for Women and Children, Plaistow.—£1500, of which £1000 for building.
St. Monica's Hospital.—£100.
St. Peter's Hospital for Stone.—£50.
St. Saviour's Hospital, Osnaburgh-street.—£200.
Samaritan Free Hospital.—£500.
Santa Claus Home.—£25; to improvements. In consideration of the fact that some curable cases are admitted.
South Wimbledon, Merton, and District Cottage Hospital.—No grant.
Tottenham Hospital.—£2000. The committee view with satisfaction the economical management of this hospital.
University College Hospital. £2250.
Victoria Hospital for Children.—£1100.
West-End Hospital for Diseases of the Nervous System.—£100.
Western Ophthalmic Hospital.—£150; to reduce debt.
West Ham and East London Hospital.—£1500, of which £1000 to building. The committee are pleased to see the reduction in expenditure.
West London Hospital.—£3000, of which £1500 for improvements.
Westminster Hospital.—£3000, of which £2000 towards debt.
Winifred House Invalid Children's Convalescent Nursing Home.—No grant.
Woolwich and Plumstead Cottage Hospital.—£25.

SPECIAL GRANT.

Set aside for amalgamation of Throat and Ear Hospitals	£1,000

SUMMARY.

Grants	£109,000
Special grant set aside for amalgamation of Throat and Ear Hospitals	1,000
Total grants to hospitals for the year 1906	£110,000

Mr. WILLIAM LATHAM, K.C., read the report of the Convalescent Homes Committee as follows:—Owing to the continued liberality of the trustees of the London Parochial Charities the committee have again £1000 to distribute. The committee have continued their practice of giving the preference to institutions directly connected with London hospitals. The committee have called the attention of the executive committee to the fact that the country branches of London consumption hospitals are not in strictness convalescent homes. At the same time, considering the nature of the malady, it is desirable that the treatment should be conducted outside the area hitherto visited by the visitors to hospitals. The following awards are recommended:—

Alexandra Hospital, Convalescent Home at Painswick.—£25.
Charing Cross Hospital, Convalescent Home at Limpsfield, Surrey.—£50.
Chelsea Hospital for Women, Convalescent Home at St. Leonards.—£50.
East London Hospital for Children, Convalescent Home at Bognor.—£100.
Hospital for Sick Children, Convalescent Branch, Cromwell House, Highgate, N.—£25.
London Hospital, Convalescent Home at Tankerton, near Whitstable.—£50.
Mary Wardell Convalescent Home, Stanmore, Middlesex.—£25.
Metropolitan Convalescent Institution, Convalescent Home at Walton.—£100.
Metropolitan Convalescent Institution, Convalescent Home at Broadstairs.—£100.
Middlesex Hospital, Convalescent Home at Clacton-on-Sea.—£200.
Mildmay Mission Hospital, Convalescent Home at Hendon.—£50.
Mrs. Gladstone's Free Convalescent Home for the Poor, Haverstury House, Mitcham, Surrey.—£25.
National Hospital for the Paralysed and Epileptic, Convalescent Home at East Finchley.—£25.
Paddington Green Children's Hospital, Convalescent Home at Slough.—£50.
Queen Charlotte's Lying-in Hospital, Convalescent Home at 20, Victoria-road, Kilburn, N.W.—£25.
Victoria Hospital for Children, Convalescent Home at Broadstairs.—£100.

Total grants to Convalescent Homes, £1000.

The PRINCE OF WALES, in moving the adoption of the reports and awards, said: In moving the adoption of the reports of the Executive and Distribution Committees I should like to take the opportunity of referring to certain matters of interest and importance connected with the Fund. Through the death of Mrs. Lewis-Hill we shall receive £250,000 left to us by Mr. Lewis, her late husband. I am sure that this meeting will share my feelings of sincere regret at our loss through the death of this charitable lady, who was one of our most liberal supporters. For it must be remembered that, although that sum was left to Mrs. Lewis-Hill for her life, she contributed to the Fund during her lifetime the income of it—£10,000 a year. We shall now receive the capital sum, together with half the residue of Mr. Lewis's estate. And there is another loss which we have to deplore, one whose name will never be forgotten as the true friend and the noble-minded benefactor of the sick and poor, Mr. George Herring. From him we also receive a considerable bequest in favour of the Fund. These sums, together with the large gifts received in recent years, and legacies of £20,000 from Mr. Beit, £10,000 from Mr. John Nicholas, £6700 from Mrs. Finnie, and a large amount to be received from the estate of the late Mr. Heigham, as well as a gift of £10,000 from Mr. and Mrs. Bischoffsheim, and an equal sum from an anonymous donor, will bring our capital up to a large figure. You will all, I believe, agree that the time has come when a committee should be appointed in order to assist Lord Rothschild and Mr. H. C. Smith, who have hitherto so ably attended to the investment of our capital. With their approval I have asked, and have been lucky enough to obtain, the valuable assistance of Lord Revelstoke, Sir Ernest Cassel, and Mr. Fleming, who have joined that committee. After careful consideration, acting on legal advice, I have, with the sanction of the King, determined to apply to Parliament for a short Act to incorporate the Fund and to place its administration upon a strictly legal basis. [The Prince of Wales here touched upon some questions connected with the drafting of this Bill and continued:—] Though our capital is large we still look and hope for more support from annual subscribers of small sums. And I cannot but think that many who have been treated in the London hospitals, or their friends, would, if the matter were suggested to them in the proper light, contribute something—no matter how small—as a thank-offering. I watch with the liveliest interest and pride the development of our great charity, but I should like to feel that it had the general support of the people of London, and this can only be proved by a constantly increasing number of annual subscribers. As Sir Henry Burdett has just told us, the League of Mercy has again given us splendid support—£18,000—an increase of £3000 upon the sum given last year. It is with much pleasure that I make this announcement, as it is a testimony of the steady growth and expansion of the work of the League. I know that these results are not attained without very considerable efforts and I heartily congratulate the members of the league on the gratifying results of their labours. I am glad that we have been able to increase the sum to be distributed this year to £111,000, which includes the £1000 kindly entrusted to us by the London Parochial Charities for the convalescent homes. I hope that future distributions will never fall below this amount. We have continued the issue of our Statistical Report on Hospital Expenditure and Price which began in 1904 with the 16

large general hospitals. The value of Mr. Danvers Power's work in this respect cannot be too highly appreciated. It now includes 48 hospitals. The 16 hospitals reported on in 1904 showed a large reduction of expenditure last year, the value of which, taking into consideration the increase in the number of beds, is equal to a saving of about £20,000. When the other hospitals have had time to take advantage of the information which our reports provide we hope this satisfactory saving will be largely increased. I desire to acknowledge the ready way in which many of the hospitals have seconded our efforts by the appointment of economy committees. Let me take this opportunity of thanking Mr. J. G. Griffiths for his valuable report, made at my request, on the uniform system of hospital accounts, on which our statistics are based. My thanks are also due to the committee of hospital secretaries, presided over by Mr. Ryan. They took Mr. Griffiths' recommendations into consideration, with the final result that the Hospital Saturday and Sunday Funds have agreed with us on a revised system. This will come into force on Jan. 1st next, and, I trust, will be of benefit to all concerned in this important work of regulating hospital expenditure and thus saving money, which is the same thing as gaining it, or even better. His Royal Highness concluded his speech by offering his heartfelt gratitude to the honorary officials, members of council, and members of the various committees for their labours on behalf of the Fund.

The LORD MAYOR (Sir W. P. TRELOAR) seconded the adoption of the report, which was carried unanimously.

On the motion of the Bishop of LONDON it was resolved that the cheques for the grants should be posted on Dec. 20th.

A brief discussion relating to the proposed Bill for the incorporation of the Fund having taken place a vote of thanks was accorded to His Royal Highness who replied as follows: My Lords and Gentlemen,—I thank the chairman of the County Council and Sir William Collins for the kind vote of thanks which they proposed and seconded. I have always felt that the King conferred a great privilege upon me when he made me President of this Fund, which he had himself initiated. The King desires me to offer you his congratulations on the gratifying result of the past year and to tell you how much he appreciates the energy and self-sacrifice which have been displayed by those in whose hands has been placed the administration of the Fund. I can only say that it has given me great pleasure to meet you here again in my house, especially as last year, owing to my absence in India, I was unable to do so.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held on Dec. 13th, Sir RICHARD DOUGLAS POWELL, Bart., K.C.V.O., the President, being in the chair.

The PRESIDENT referred to a letter which he had received from the President of the Royal College of Surgeons of England relating to a donation of £40,000 from Mr. and Mrs. Bischoffsheim. This sum was to form a fund the income of which should be devoted to the investigation of cancer by the Imperial Cancer Research Fund. The President undertook to write to thank the donors for their munificent gift and for the wise disposal of the fund.

The PRESIDENT announced that the adjudicators of the Weber-Parkes prize and medals had selected the following subject for the next essay: "The Value of the Bacterial Products in Protecting against or Curing Tuberculous Diseases, with Special Reference to Pulmonary Tuberculosis in Man."

The following communications were received:—1. From the organising committee of the second International Congress on School Hygiene, inviting the College to send delegates to the congress to be held in London from August 5th to 10th next. It was resolved that the invitation should be accepted, and that Sir William S Church and Dr. G. A. Heron should be nominated as delegates to represent the College. 2. From the Liverpool School of Tropical Medicine, asking the views of the College on a scheme for lengthening and enlarging their curriculum of study. The matter was referred to the committee of management for consideration and report. 3. From the Secretary of the Royal College of Surgeons of England reporting the proceedings of the Council on Nov. 8th, 1906.

A report was received from the representative of the College on the General Medical Council on the proceedings of the Council at its session in November last.

Dr. Frederick T. Roberts was re-elected the representative of the College on the court of governors of the University of Sheffield.

A report, dated Nov. 19th, was received from the committee of management, submitting the proposed arrangements with the London School of Tropical Medicine for the attendance of assessors at its examinations. The proposals were agreed to.

A supplementary report was received from the same committee, dated Dec. 3rd, making the following recommendations which were agreed to:—

1. That Berkhamsted School, which is already recognised for instruction in chemistry and physics, be also recognised for instruction in biology.

2. That the course of laboratory instruction in public health given at Guy's Hospital Medical School be recognised as fulfilling the conditions of clause 2, paragraph II., section II. of the Regulations for the Diploma in Public Health.

3. That the Borough of Hornsey Isolation Hospital be added to the list of fever hospitals recognised for instruction in infectious diseases for the Final Examination of the Examining Board in England and for the Diploma in Public Health.

The PRESIDENT then dissolved the Comitia.

THE LEAGUE OF MERCY.

Mr. FREDERICK GREEN (Romford), deputy chairman, presided over the seventh annual meeting of the presidents of the League of Mercy which was held at St. Mary's Hospital, Paddington, on Dec. 12th. Among those present were Princess Victoria and Princess Louise Augusta of Schleswig-Holstein, Lady Donegall, Dora Countess of Chesterfield, the Dowager Lady Lamington, Lord Wolverton, Lady Somerset, Sir F. Cory-Wright, Sir W. J. Collins, M.P., and Sir Henry Burdett.

Mr. GREEN having referred in sympathetic terms to the death of the Earl of Mansfield, chairman of the annual meeting of the presidents, Mr. E. W. WALLINGTON, the honorary registrar, read the following letter from the Prince of Wales, Grand President:—"I am directed by the Prince of Wales to say that the Princess and he share with the presidents of the League their regret at the untimely death of the late Lord Mansfield. Last year, owing to his absence in India His Royal Highness was unable to communicate with the presidents on the occasion of their annual meeting. He desires now to offer from the Lady Grand President, as well as from himself as Grand President, hearty congratulations to them and all those working under them on the continued progress of the League's operations alike in volume and extent. His Royal Highness is glad to learn that the League will in all probability be able to hand over the sum of about £17,000 to the King's Hospital Fund. This is the largest amount which has yet been contributed, and it is most gratifying to His Royal Highness to know that the work done by the members of the League has served to render such valuable aid not only to London hospitals but also to the various local hospitals in the Home Counties."

Sir HENRY BURDETT, in giving a statement as to the financial result of the year's work, explained that, owing to the date of the meeting, the returns of only 68 of the 100 districts had been received. In 37 there was an increase of £1803 in the receipts and in 31 a decrease of £1030, making a gain for the year of £773. To show what could be done by organisation in the counties, he referred to the result in Berks, Bucks, Hants, and Oxon, over which Her Highness Princess Victoria presided, where the figures this year reached £1666 compared with £1047 in 1905. He hoped that the total receipts for this year would certainly exceed last year's total of £18,139, when £15,000 were given to the King's Fund.

Mrs. MURDOCK read, on behalf of Princess Victoria of Schleswig-Holstein, a short account of the work accomplished in the four counties over which Her Highness presided. In Berks the result was the collection of £664, besides which the Princess had been able to give £60 to each of the four county hospitals, the proceeds of the fancy fair held at Buckhurst, Wokingham, in July last. The other three counties had been in course of organisation

during the year and the Princess had received great sympathy in the work which she was trying to carry forward for the benefit of the suffering. Hants contributed £469, Oxon £288, and Bucks £244, and Her Highness desired warmly to thank all those who had so ably seconded her efforts.

Looking Back.

FROM

THE LANCET, *SATURDAY*, Dec. 20th, 1828.

There was one feature in the late trial[1] which we think it right to notice, as well from its peculiarity, as from the influence which the decision of LORD TENTERDEN will probably have on all future actions for libel against the editors of public journals. By a whimsical interchange of professional functions, the first common lawyer at the bar became, upon this occasion, the expounder of points of surgery, and the editor of a medical journal, having made his election to address the Jury in his own behalf, was reduced, by the etiquette of the bar, to the necessity of arguing a point of law. "He who wins may laugh," saith the proverb, and therefore, while we have some reason to congratulate ourselves on the success with which we performed the part of lawyer, for we beat Sir JAMES SCARLETT *on the point of law*, we may also be permitted to laugh at the ludicrous figure which Sir JAMES made in his attempt to enact the character of surgeon. Sir JAMES, indeed, regardless of that legal maxim which gives every man credit for skill in his peculiar calling, threatened, in his speech to the Jury, to expose our ignorance of surgery, and we girded ourselves up for the lawyer's attack on our professional knowledge. The threat, however, shared the fate of all the assertions made by the learned Counsel; it flashed in the advocate's speech, but vanished, with a slight smell of sulphur when he came to the examination of witnesses; it was *vox, sonus, aura, nihil*. On the other hand, we maintained our point of law, not only against Sir JAMES SCARLETT, but against the opinion of our own Counsel, and we GAINED it. As this is a matter which may involve consequences of great importance to the liberty of the Press, and as the point discussed was misunderstood in all the Reports of the trial which we have seen in the newspapers, we shall endeavour to make it clear to our readers.

In general a plaintiff has the right to open his case, and, by consequence, to have the general reply;

> For courts of justice understand,
> The plaintiff to be eldest hand;

but there are some exceptions to this rule, as in actions of ejectment and replevin, where the party who has to prove the affirmative of the issue is allowed to begin. In an action of trespass, *quare clausum fregit*, (*Hodges* v. *Holder*, *3 Campbell's N.P. Reports, p. 366.*) the defendant admitted substantially the entering of the plaintiff's close, but pleaded a right of way. Here the affirmative of the issue being thrown upon the defendant, Mr. Justice BAYLEY held that he had a right to begin. The same point arose in the case of *Jackson* v. *Hesketh* (*2, Starkie, N.P.C., p. 518.*) tried at the Lancaster Assizes 1819, and Mr. Justice Bayley, after having consulted Mr. Baron Wood, decided that the defendant was entitled to begin, and to have the general reply. Again, in an action of assault and battery (*Bedell* v. *Russel*, *Ryan and Moody's Nisi Prius Reports, p. 293.*) where the defendant pleaded a justification only, without the plea of "not guilty," and the right of beginning was insisted upon by Mr. Serjeant WILDE for the defendant, Chief Justice BEST said, "that but for the authorities cited, he should certainly have thought, that the *onus* of proving the damages sustained, gave the plaintiff a right to begin; but that, as it was of the utmost consequence that the practice should be uniform, he should consider himself bound by those cases, until the matter should be settled in full court."

On the authority of these cases we maintained our right to begin, and to have the general reply. Sir JAMES SCARLETT, on the other hand, insisted, first, that as the plaintiff had to show the amount of damages sustained, the affirmative was thrown upon him, and he was consequently entitled to begin; secondly, that as our second and fourth pleas contained negative allegations, as that the plaintiff had *not* performed the operation with the skill which the public had a right to expect from a surgeon of Guy's Hospital, &c., the affirmative of the issue was not with the defendant, but with the plaintiff. We replied that, as to the first point, Mr. Justice BAYLEY had decided that the question of damages never arose until the issue had been tried; and that, as to the second point, the allegations in our pleas were substantially affirmative allegations; and we expressed a hope, that the practice which had uniformly prevailed at Nisi Prius, in cases where the defendant had justified, would govern the decision of the Court. Lord TENTERDEN intimated an opinion in our favour; but said, that as this case was likely to become a precedent for all future cases of the same kind, and as he had the advantage of being able to consult two of his Learned Brothers in the adjoining Courts, he should take their opinion. The Lord Chief Justice left the Court, and on his return, stated, that his Learned Brothers concurred with him in the opinion, that the defendant was entitled to begin, and to have the general reply.

This decision will, we doubt not, lead to most important consequences. It is calculated to strengthen the hands of public writers, and to raise a new bulwark in support of the liberty of the press, by depriving its enemies of the power of casting gratuitous aspersions on public journalists, without being subject to reply and exposure.

[1] Excerpt from a leading article on the case of Bransby Cooper v. Wakley, tried at the Court of King's Bench, Westminster, Dec. 12th, 1828, before Lord Tenterden and a Special Jury.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Dec. 13th, Mr. HENRY MORRIS, the President, being in the chair.

The Council congratulated Sir John Tweedy on receiving the honour of knighthood.

A vote of thanks was given to Mr. and Mrs. Bischoffsheim for their donation of £40,000 to the Imperial Cancer Research Fund.

A report was read from the board of examiners in anatomy and physiology for the Fellowship stating that at the recent examination 95 candidates presented themselves and that of these 27 were approved.

A report was read from the court of examiners stating that at the recent final examination for the Fellowship 48 candidates presented themselves and that of these 19 were found qualified for the diploma of Fellow but two of them had not attained the age of 25 years, therefore it was resolved that diplomas of Fellow should be issued to 17 successful candidates.

In accordance with a report from the board of examiners in dental surgery it was resolved to issue the Licence in Dental Surgery to 41 successful candidates.

The best thanks of the Council were given to Sir Victor Horsley for his very interesting and valuable report upon the brain of Professor Babbage.

It was resolved that Volume III. of the Physiological Catalogue should be issued.

The museum committee was authorised to consider and to report as to what steps it was desirable to take with a view to prepare a new edition of the Pathological Catalogue.

A report was read from the committee of management submitting recommendations in reference to the appointment of assessors to the examinations of the London School of Tropical Medicine. The recommendations were adopted.

A letter was received from the President reporting the proceedings of the General Medical Council at its late session. The best thanks of the Council were given to the President as the representative of the College on the General Medical Council.

The PRESIDENT reported the delivery of the Bradshaw lecture by Mr. Edmund Owen, the subject of the lecture being "Cancer: its Treatment by Modern Methods." The best thanks of the Council were given to Mr. Owen for his lecture and he was requested to publish it.

The Council then proceeded to consider the resolutions

carried at the annual meeting of the Fellows and Members. In reply to the first resolution—

That this twenty-second annual meeting of Fellows and Members again re-affirms the desirability of admitting Members to direct representation on the Council, which as now constituted does not represent the whole corporation—

it was resolved that the mover and seconder should be informed that the resolution had been laid before the Council.

In reply to the second resolution—

That this meeting recommends that, when the question of admitting women to the College examinations is brought before the Fellows and Members, this should be done by a poll of the Fellows and Members—

it was resolved that the mover and seconder should be informed that it had been laid before the Council and was under consideration.

In reply to the third resolution—

That this meeting strongly urges the Council to use all its influence to secure the raising the standard of the preliminary examination in general education and in science, and this meeting is further of opinion that the time has arrived when chemistry, physics, and biology should be treated as matters of preliminary education and an examination passed in them before the commencement of medical studies—

it was resolved that the following should be sent to the mover and seconder:—

With regard to the suggestion that the standard of the examination in general education be raised, the Council would remind the Fellows and Members that so recently as 1900 steps were taken with this object. From the beginning of that year the General Medical Council ceased to recognise for the purpose of registration the first division second-class certificate of the College of Preceptors. As pointed out by the Council in their report to the Fellows and Members in 1901, a decrease of 305 in the number of students registered during the year after passing the examinations of the College of Preceptors immediately ensued upon this alteration, while an increase of 40 in the number of students registered after passing the preliminary examination of the Educational Institute of Scotland was noted. In view of these facts the Council think that so far as this division of the United Kingdom is concerned it would be inexpedient at the present time to still further increase the difficulty of the examination in general education.

Again, as regards the suggestion that the standard of the preliminary examination in science should be raised, the Council would remind the Fellows and Members that in this matter steps have been taken even more recently. During the years 1903 and 1904 the Council, in association with the Royal College of Physicians of London, devoted much time and attention to the regulations relating to the first year of the medical curriculum and the examination in the subjects of chemistry, physics, and biology studied during that period. After consultation with the teachers in those subjects at the several medical schools in England, and the past and present examiners, revised regulations, effecting a complete rearrangement of the examination and materially raising its standard, were adopted. These regulations came into force in March, 1905.

With reference to the opinion that chemistry, physics, and biology should be treated as subjects of preliminary education and an examination be passed in them before the commencement of medical studies, the views of the Council upon this question, and their reasons for forming them, are fully set forth on pages 6 to 12 of the last annual report of the Council.

MEDICINE AND THE LAW.

Abortionists sent to Penal Servitude.

AT the Old Bailey on Dec. 12th a prisoner named Arthur Raynor, who was stated to have had at one time a substantial practice as a medical man, was sentenced to three years' penal servitude for having performed an illegal operation upon a married woman, 39 years of age, whose death had been caused by it. The cause of his downfall was said to be domestic unhappiness followed by alcoholic excess and he had evidently been in very much reduced circumstances. Latterly he had been suspected of practices such as that for which he has now been imprisoned. It was fortunate for the prisoner that the grand jury took a merciful view of his case at the opening of the sessions, for they threw out a bill for murder which had been preferred against him. Anyone who in committing a felony takes the life of another is legally guilty of murder, although in practice it is frequently found difficult to obtain a conviction for that offence. On the same day at Leeds, in a case which has attracted considerable public attention, a woman named Elizabeth Miller was sentenced to five years' penal servitude for performing illegal operations which she evidently carried on systematically, and she also may be said to have had a narrow escape from conviction upon more serious charges. She was stated to have been a professional nurse, and at a "maternity home" which she kept illegal operations were performed and the dead bodies of infants were burnt or buried of whose births and deaths no particulars ever reached the registrar. In the illegal operations Miller had the coöperation of a man named Craythorne who was arrested soon after herself but he succeeded in committing suicide in his cell. In the case of infants duly born at maturity medical men were called in who naturally were allowed to see nothing to arouse their suspicions in the "home." One of these gave evidence of two births which he had attended, neither of which was afterwards registered. The brazen callousness of the prisoner was illustrated in the evidence of one of her servants who deposed to having seen the body of a child being burnt in a fire lighted under a copper boiler, when her mistress said to her, "I have burned dozens. You have not as much pluck as the other girls I had. They used to push them under as if they were nothing." Crimes committed so recklessly and boasted of openly are likely to be detected in the long run, but it is a little disquieting that a woman of this kind should have flourished even for a short time as Miller seems to have done. She advertised for her "patients" in the newspapers and extracted fees varying from five to 30 guineas. It might be suggested that the police should apply some kind of unobtrusive supervision to maternity homes where secrecy appears to be one of the principal attractions offered to the expectant mother.

Typhoid Fever and Warranty.

An action which recently was down for trial before Mr. Justice Grantham and a special jury was of an unusual character and was settled before it came into court, the facts being afterwards formally mentioned. The claim was brought by a mother in respect of the illness of herself and of two sons, boys at Eton, one of whom had died. All three had contracted typhoid fever at a hydropathic establishment kept by a medical man. The defendant had paid £1250 into court, with an admission of his liability, being advised that he was liable upon an implied warranty, no matter how careful he might have been and whatever steps he had taken to prevent danger. The learned judge expressed his sympathy with the plaintiff who brought her action upon public grounds and who would not be more than compensated by the sum paid into court for the expenses and costs which she had incurred.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 7623 births and 5271 deaths were registered during the week ending Dec. 15th. The annual rate of mortality in these towns, which had been equal to 15·8 per 1000 in each of the two preceding weeks, rose last week to 17·4. During the first eleven weeks of the current quarter the death-rate in these towns averaged 15·6 per 1000; the rate during the same period in London was 15·2. The lowest death-rates in the 76 towns during the week under notice were 7·3 in Ipswich, 7·4 in Handsworth, 7·8 in Hastings, and 8·3 in Warrington; the rates in the other towns ranged upwards to 24·0 in Oldham, Sunderland, and Middlesbrough, 26·4 in Burnley, and 28·7 in Rochdale. The 5271 deaths in the 76 towns showed an increase of 492 upon the low number returned in the preceding week, and included 411 which were referred to the principal epidemic diseases, against 414 and 399 in the two previous weeks; of these, 128 resulted from measles, 78 from diphtheria, 60 from diarrhœa, 57 from whooping-cough, 47 from "fever" (principally enteric), 40 from scarlet fever, and one from small pox. The deaths from these epidemic diseases were equal to a mean annual rate of 1·4 per 1000 in the 76 towns; the rate did not exceed 1·2 in London. No death from any of these diseases was returned last week in Huddersfield, Burnley, Blackburn, King's Norton, or in six other of the 76 towns; the annual death-rates therefrom, however, ranged upwards in the other 66 towns to 4·2 in South Shields, 5·1 in Rotherham, 5·5 in Bootle, and 6·0 in Rochdale. The fatal cases of measles, which had been 114 and 121 in the two preceding weeks, rose last week to 128; the highest annual rates from this disease in these towns were 3·2 in Bootle, 4·2 in Rochdale and in South Shields, and 5·1 in Rotherham. The 78 deaths referred to diphtheria showed a further decline of four from the high numbers in the two previous week, but caused

annual rates equal to 1·4 in West Hartlepool, 1·6 in Wallasey and in Bootle, 1·7 in Derby, and 2·0 in Reading and in Stockton-on-Tees. The deaths from diarrhœa showed also a further decline, but they were again excessive in Middlesbrough, Wigan, and Merthyr Tydfil. Whooping-cough caused the highest death-rates in Stockport, Willesden, and Swansea; and the deaths referred to "fever" were proportionally most numerous in Middlesbrough. The 40 fatal cases of scarlet fever included 15 in London and five in Liverpool, and the death from small-pox occurred in Hull. No case of small-pox has been under treatment in the Metropolitan Asylums Hospitals since the end of June. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 4053 and 4062 in the two preceding weeks, had decreased to 3986 at the end of the week under notice; 359 new cases were admitted to these hospitals during the week, against 467, 401, and 419 in the three previous weeks. The deaths in London referred to pneumonia and other diseases of the respiratory organs, which had been 312 and 345 in the two preceding weeks, further rose last week to 408, but were 23 below the corrected average in the corresponding week of the last four years 1902–05. The causes of 43, or 0·8 per cent., of the deaths registered during the week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were again duly certified in Leeds, Bristol, West Ham, and Bradford, and also in 53 other of the 76 towns; the proportion of uncertified deaths, however, again showed a considerable proportional excess in Preston, Gateshead, South Shields, and Barrow-in-Furness.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been equal to 17·6 and 18·4 per 1000 in the two preceding weeks, declined again to 18·1 in the week ending Dec. 15th, but exceeded by 0·7 the mean rate during the same week in the 76 English towns. The rates in the eight Scotch towns ranged from 16·2 and 16·8 in Greenock and Paisley to 19·1 in Edinburgh and 19·6 in Perth. The 620 deaths in the eight towns showed a decline of 12 from the number in the previous week and included 55 which were referred to the principal epidemic diseases, against 61 and 68 in the two previous weeks. These 55 deaths were equal to an annual rate of 1·6 per 1000, which exceeded by 0·3 the rate from the same diseases in the 76 English towns; they included 15 which were referred to whooping-cough, 13 to diphtheria, 14 to diarrhœa, eight to "fever," four to measles, one to scarlet fever, and not one to small-pox. The 15 fatal cases of whooping-cough showed a decline from recent weekly numbers, and included 13 in Glasgow. The deaths referred to diarrhœa also showed a further decline; six were returned in Glasgow, three in Edinburgh, and two in Aberdeen. The 13 deaths from diphtheria, on the other hand, showed a considerable increase, and included six in Glasgow, three in Dundee, and two in Aberdeen. Of the eight deaths referred to "fever" seven occurred in Glasgow, four being certified as cerebro-spinal fever. All the four fatal cases of measles were returned in Aberdeen. The deaths in the eight towns referred to diseases of the respiratory organs, including pneumonia, which had been 145 and 126 in the two preceding weeks, rose again last week to 133, and exceeded the number returned in the corresponding week of last year by 20. The causes of 15, or 2·4 per cent., of the deaths registered during the week were not certified or not stated; the mean proportion of uncertified deaths in the 76 English towns during the week did not exceed 0·8 per cent.

HEALTH OF DUBLIN.

The annual death-rate in Dublin, which had been equal to 23·8 and 22·4 per 1000 in the two preceding weeks, further declined to 22·3 in the week ending Dec. 15th. During the first eleven weeks of the current quarter the death-rate in the city averaged 23·9 per 1000, the mean rate during the same period being only 15·2 in London and 15·9 in Edinburgh. The 162 deaths of Dublin residents during the week under notice showed a further slight decline from the number returned in recent weeks; they included 13 which were referred to the principal epidemic diseases, against 19, 16, and 9 in the three preceding weeks. These 13 deaths were equal to an annual rate of 1·8 per 1000, against 1·2 and 0·8 respectively from the same diseases in London and Edinburgh. The 13 deaths in Dublin last week from these epidemic diseases included five from diphtheria, four from whooping-cough, four from diarrhœa, and not one from measles, scarlet fever, "fever," or small-pox. The five fatal cases of diphtheria showed a marked increase upon recent weekly numbers, and the deaths from diarrhœa also showed an increase. The four fatal cases of whooping-cough were within one of the number in the previous week. Seven inquest cases and three deaths from violence were registered; and 56, or 34·6 per cent., of the deaths occurred in public institutions. The causes of 12, or 7·4 per cent., of the deaths registered in the city during the week were not certified; the percentage of uncertified causes of death during the same week did not exceed 0·2 in London, while it was 4·0 in Edinburgh.

VITAL STATISTICS OF LONDON DURING NOVEMBER, 1906.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious disease it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 9·5 per 1000 of the population, estimated at 4,721,217 persons in the middle of the year. In the three preceding months the rates had been 6·8, 9·0, and 11·1 per 1000 respectively. The lowest rates last month were recorded in the City of London and in the boroughs of Kensington, City of Westminster, St. Pancras, Stepney, and Poplar; and the highest rates in Fulham, Chelsea, Bethnal Green, Bermondsey, Greenwich, and Woolwich. The prevalence of scarlet fever last month showed a considerable decline from that recorded in the preceding month; among the various metropolitan boroughs this disease was proportionally most prevalent in Paddington, Hammersmith, Fulham, Bethnal Green, Bermondsey, Battersea, and Greenwich. The Metropolitan Asylums hospitals contained 4003 scarlet fever patients at the end of last month, against 3012, 3360, and 4111 at the end of the three preceding months; the weekly admissions averaged 430, against 338, 461, and 543 in the three preceding months. Diphtheria was slightly less prevalent in November than it had been in the preceding month; this disease showed the greatest proportional prevalence in Fulham, Chelsea, Holborn, Bermondsey, Deptford, Greenwich, and Woolwich. The number of diphtheria patients under treatment in the Metropolitan Asylums hospitals, which had been 834, 844, and 1062 at the end of the three preceding months, had further risen to 1075 at the end of last month; the weekly admissions averaged 153, against 111, 130, and 175 in the three preceding months. There was a slight diminution in the prevalence of enteric fever last month; among the various boroughs this disease was proportionally most prevalent in Hammersmith, St. Marylebone, the City of London, Stepney, Southwark, and Woolwich. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals which had been 103, 139, and 200 at the end of the three preceding months had declined again to 161 at the end of last month; the weekly admissions averaged 24, against 16, 28, and 34 in the three preceding months. Erysipelas was proportionally most prevalent in Holborn, Finsbury, the City of London, Shoreditch, Bethnal Green, Southwark, Bermondsey, and Camberwell. The 13 cases of puerperal fever notified during the month included three belonging to Islington, and one each to ten other boroughs.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various boroughs, the deaths occurring in public institutions having been distributed among the boroughs in which the deceased persons had previously resided. During the four weeks ending Dec. 1st the deaths of 5341 persons belonging to London were registered, equal to an annual rate of 14·7 per 1000; in the three preceding months the rates were 15·8, 17·1, and 13·6 per 1000 respectively. The death-rates last month ranged from 9·7 in Lewisham, 10·0 in Stoke Newington, 10·2 in Hampstead, 11·8 in Battersea, 12·1 in Hackney, and 12·5 in the City of Westminster, to 18·0 in Holborn, 18·6 in Poplar, 18·7 in Bethnal Green, 20·1 in Stepney, 22·1 in Finsbury, and 22·5 in Bermondsey. The 5341 deaths from all causes in London last month included 350 which were referred to the principal infectious

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING NOVEMBER, 1906.

(Specially compiled for THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1906.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.												
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON	**4,721,217**	—	**1935**	**799**	—	**151**	—	**13**	**513**	—	**3431**	**9·5**	—	**75**	**42**	**60**	**34**	—	**24**	—	**115**	**350**	**1·0**	**5341**	**14·7**	**108**
West Districts.																										
Paddington	148,913	—	105	22	—	3	—	1	13	—	144	12·6	—	—	1	—	1	—	—	—	5	7	0·6	154	13·5	102
Kensington	180,952	—	42	18	—	2	—	—	15	—	77	5·5	—	—	—	1	2	—	—	—	4	7	0·5	180	13·0	117
Hammersmith	120,679	—	66	25	—	8	—	—	16	—	115	12·4	—	—	1	3	—	—	2	—	2	8	0·9	130	14·0	100
Fulham	161,965	—	110	58	—	1	—	1	8	—	178	14·4	—	6	—	6	1	—	3	—	11	27	2·2	124	14·9	108
Chelsea	74,672	—	30	45	—	2	—	—	3	—	80	14·0	—	—	—	1	—	—	—	—	1	2	0·3	73	12·7	100
City of Westminster	173,906	—	58	19	—	1	—	—	15	—	93	7·0	—	1	1	2	—	—	1	—	2	7	0·5	167	12·5	121
North Districts.																										
St. Marylebone	128,580	—	42	7	—	7	—	—	14	—	70	7·1	—	—	1	—	—	—	—	—	6	7	0·7	124	12·6	59
Hampstead	89,633	—	32	16	—	2	—	—	5	—	55	8·0	—	—	—	1	—	—	—	—	2	3	0·4	70	10·2	80
St. Pancras	236,455	—	50	19	—	12	—	—	25	—	106	5·8	—	—	1	1	2	—	3	—	6	13	0·7	256	14·1	95
Islington	344,987	—	138	43	—	13	—	3	39	—	236	8·9	—	5	2	4	2	—	1	—	4	18	0·7	375	14·2	115
Stoke Newington	53,217	—	17	6	—	2	—	1	5	—	31	7·6	—	—	—	1	—	—	—	—	2	3	0·7	41	10·0	98
Hackney	230,721	—	98	39	—	10	—	1	24	—	172	9·7	—	5	2	4	1	—	—	—	5	17	1·0	215	12·1	79
Central Districts.																										
Holborn	55,806	—	7	16	—	1	—	1	8	—	33	7·7	—	—	—	—	—	—	—	—	3	3	0·7	77	18·0	75
Finsbury	97,466	—	27	11	—	1	—	—	18	—	57	7·6	—	—	2	2	3	—	1	—	5	16	2·1	165	22·1	102
City of London	21,367	—	4	—	—	2	—	—	3	—	9	5·5	—	—	—	—	1	—	—	—	—	1	0·6	26	15·9	115
East Districts.																										
Shoreditch	116,108	—	48	5	—	6	—	—	16	—	75	8·4	—	—	3	—	1	—	—	—	5	9	1·0	140	15·7	106
Bethnal Green	130,609	—	72	16	—	5	—	1	36	—	130	13·0	—	7	3	1	—	—	1	—	2	14	1·4	187	18·7	141
Stepney	307,176	—	73	35	—	18	—	—	31	—	157	6·7	—	21	3	3	3	—	3	—	13	46	2·0	473	20·1	126
Poplar	170,673	—	37	17	—	5	—	—	16	—	75	5·7	—	10	1	—	1	—	1	—	7	20	1·5	244	18·6	189
South Districts.																										
Southwark	209,143	—	110	30	—	13	—	—	32	—	185	11·5	—	—	4	4	4	—	1	—	3	16	1·0	281	17·5	110
Bermondsey	128,629	—	104	32	—	5	—	—	18	—	159	16·1	—	9	5	2	2	—	—	—	3	21	2·1	222	22·5	176
Lambeth	315,774	—	114	29	—	8	—	—	27	—	178	7·3	—	—	—	2	1	—	1	—	4	8	0·3	370	15·3	93
Battersea	179,622	—	122	21	—	5	—	1	16	—	165	12·0	—	1	1	—	2	—	1	—	2	7	0·5	162	11·8	69
Wandsworth	273,381	—	80	57	—	12	—	—	29	—	178	8·5	—	2	3	9	1	—	4	—	2	21	1·0	268	12·8	93
Camberwell	274,132	—	120	42	—	11	—	1	39	—	213	10·1	—	1	2	5	4	—	—	—	4	16	0·8	267	12·7	94
Deptford	115,495	—	39	51	—	4	—	—	12	—	106	12·0	—	—	—	1	1	—	1	—	—	3	0·3	139	15·7	101
Greenwich	105,350	—	69	31	—	1	—	—	12	—	113	14·0	—	1	3	1	—	—	—	—	2	7	0·9	112	13·9	101
Lewisham	148,463	—	59	31	—	2	—	1	8	—	101	8·9	—	—	3	2	1	—	—	—	2	8	0·7	111	9·7	52
Woolwich	127,345	—	62	58	—	9	—	1	10	—	140	14·3	—	6	—	4	—	—	—	—	5	15	1·5	123	13·1	98
Port of London	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup.

diseases; of these, 75 resulted from measles, 42 from scarlet fever, 60 from diphtheria, 34 from whooping-cough, 24 from enteric fever, and 115 from diarrhœa. Among the metropolitan boroughs these diseases caused the lowest death-rates in Kensington, Chelsea, the City of Westminster, Hampstead, Lambeth, Battersea, and Deptford; while the highest rates were recorded in Fulham, Finsbury, Stepney, Poplar, Bermondsey, and Woolwich. The 75 deaths from measles were only about one-half of the average number in the corresponding periods of the four preceding years; this disease was proportionally most fatal in Fulham, Bethnal Green, Stepney, Poplar, Bermondsey, and Woolwich. The 42 fatal cases of scarlet fever were six in excess of the corrected average number; among the various metropolitan boroughs this disease showed the highest proportional mortality in Finsbury, Shoreditch, Bethnal Green, Bermondsey, and Greenwich. The 60 deaths from diphtheria almost corresponded with the corrected average number; the highest death-rates from this disease were recorded in Hammersmith, Fulham, Finsbury, Wandsworth, and Woolwich. The 34 fatal cases of whooping-cough were less than one-half of the average; among the metropolitan boroughs whooping-cough was proportionally most fatal in Finsbury, Southwark, Bermondsey, and Camberwell. The 24 deaths from enteric fever were 19 below the corrected average number in the corresponding periods of the four preceding years; of these 24 deaths, four belonged to Wandsworth, three each to Fulham, St. Pancras, and Stepney, and two to Hammersmith. The 115 fatal cases of diarrhœa were 18 in excess of the average; the greatest proportional mortality from this disease occurred in Fulham, St. Marylebone, Holborn, Finsbury, Shoreditch, Stepney, Poplar, and Woolwich. In conclusion, it may be stated that the aggregate mortality in London last month from these principal infectious diseases was nearly 23 per cent. below the average.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 108 per 1000. The lowest rates of infant mortality were recorded in St. Marylebone, Hampstead, Hackney, Holborn, Battersea, and Lewisham; and the highest rates in the City of Westminster, Bethnal Green, Stepney, Poplar, and Bermondsey.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeons: H. W. Macnamara to the Royal Marines, Portsmouth; W. J. Colborne to the *Euryalus*; A. Gaskell to the *Hogue*; J. Bradley to the *Victorious*; G. T. Broatch to the *Cornwall*; J. Jenkins to the *Cumberland*; and E. C. Lomas, D.S.O., to the *Hibernia*. Staff Surgeons: B. F. Parish to the *Implacable*; W. H. Thomson to the *Ariadne*; and A. E. Kelsey to the *Trafalgar*. Surgeon: L. L. Greig to the *Hibernia*.

ROYAL ARMY MEDICAL CORPS IN INDIA.

Colonel P. M. Ellis has assumed charge as Principal Medical Officer, 4th (Quetta) Division. Colonel O. Todd and Colonel P. H. Benson, I.M.S., have handed over and received charge respectively of the Principal Medical Officer's office, 6th (Poona) Division. Captain D. Harvey is appointed a specialist in prevention of disease at Calcutta, with effect from the date on which he takes over his duties. Lieutenant-Colonel J. R. Dodd has been appointed to command station hospital, Agra, on being relieved of the charge of Principal Medical Officer, Bareilly and Garhwal Brigades, by Colonel G. J. Kellie, I.M.S. Lieutenant-Colonel T. B. Winter has arrived at Bareilly from Meerut and taken over command of the station hospital. Captain G. T. K. Maurice is transferred to Meerut. Captain P. S. Lellan is transferred to Bareilly. Captain W. L. Steele is appointed acting senior medical officer, Barkachha Camp. Captain W. Davis has arrived at Bareilly from Landeur for duty. Captain A. H. Mc N. Mitchell is granted general leave in India on private affairs from Nov. 5th, 1906, to date of embarkation for England as tour expired. Lieutenant A. C. Osburn has returned to Agra from Calcutta. Lieutenant E. G. Anthonisz has arrived at Bombay. Lieutenant-Colonel J. B. W. Buchanan is struck off the strength of Indian Establishment, from Nov. 7th, 1906. Lieutenant-Colonel J. Lees Hall, returning from sick leave, embarked from England in *Dongola* on Nov. 21st. Captain L. L. G. Thorpe, R.A.M.C., returning from sick leave, embarked from England in *Assaye* on Nov. 7th.

INDIAN MEDICAL SERVICE.

The King has approved of the following promotions among officers of the Indian Medical Service made by the Government of India:—

Majors to be Lieutenant-Colonels (dated Sept. 30th, 1906): Robert Joseph Macnamara, Herbert Wilson Pilgrim, Francis Wyville Thomson, Edwin Harold Brown, Charles Norman Bensley, Selby Herriot Henderson, Brenman Buhot Grayfoot, David Wilson Scotland, Charles Robert Mortimer Green, Richard Henderson Castor, Thomas Edward Dyson, Edward Christian Hare, Frank Cecil Clarkson, John Gregory Jordan, Herbert Mackinlay Morris, Allan Rupert Postance Russell, James Morwood, Frederick George Maidment, and Edmund Alexander William Hall. Captains to be Majors (dated July 29th, 1906): Arthur Gwyther and John Archibald Hamilton.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The official inspection of the classes recently under instruction at the headquarters of the Artists' R.V. was held on Dec. 12th, the inspecting officer being Lieutenant-General W. H. Douglas, C.B., adjutant-general, who was accompanied by Colonel A. Sloggett, C.M.G., principal medical officer, London district. The classes were formed up in three sides of a square with the officers in front. After minutely inspecting the ranks the prizes were distributed by the Adjutant-General, who then made the following remarks: "I will commence by reading the report of Major Wade Brown, R.A.M.C., who was the senior examiner of the last class; he says in his official report to the principal medical officer, London district, 'I wish to bring to your notice the high efficiency of this class which is far above the average.' Personally, I can only repeat the above and I want to tell you that the time has now arrived when it is probable that if proper representation is made official recognition will be granted to this school. The Director-General of the Army Medical Department has spoken very highly of it and I would like to emphasise that in the future strenuous efforts should be made to keep the school as efficient as it has been in the past; I would suggest that some form of practical nursing should be taught and every effort should be made to give instruction in camp sanitation and preventive medicine, for the Japanese have recently taught us much on these lines." The Adjutant-General also stated that in the future subalterns of the regular army would have to pass an examination in the sanitation of camps before they would get promotion to captain. A manual on the subject would shortly appear. Surgeon-Colonel Giles, senior medical officer, thanked the Adjutant-General for his remarks and also Colonel Horsley for the use of headquarters, and added that it would be the endeavour of the staff of the school to keep the instruction on as high a level as possible. He added that a great impetus would be given to the school if a War Office certificate were awarded for knowledge of hospital duties and sanitation of camps. The next class will be held at the headquarters of the 4th V.B. the "Queen's" Royal West Surrey Regiment, 71, New-street, S.E., commencing on Feb. 9th, 1907.

THE BRITISH RED CROSS SOCIETY.

This society as newly constituted under the patronage of the King and Queen has made considerable progress in its organisation with a view to being prepared effectually to offer immediate aid in time of war by supplying such general help as may be considered beyond the reasonable scope of the official bodies responsible for providing for the casualties of war. A meeting was recently held in Birmingham for the purpose of establishing a Birmingham branch of the British Red Cross Society. The meeting, which was held in the medical theatre of the University, was well attended, and after it had been decided that a branch should be formed the Marquis of Hertford was elected president and an influential committee was appointed. Local branches have also been initiated in most of the counties of England and in several counties in Ireland, and these branches will enrol members and

associates either by a yearly payment or by guaranteeing to subscribe a fixed sum in time of war. They will also deal with all offers of voluntary aid in their respective districts and determine the particular form which that aid shall take after consultation with the central society. An earnest attempt has been made to ascertain the probable requirements of the medical departments of the navy and the army in the nature of voluntary supplemental assistance and a register has been compiled of tradesmen and others who have expressed their willingness to supply the society on the most advantageous terms on the outbreak of war; anticipatory provision has also been made for the necessary storage and labour involved in connexion with active operations. By means of these arrangements elaborated in advance the society believes that it is prepared—should war break out—to take immediate action and to commence operations at a few days' notice.

PIERSHILL BARRACKS, EDINBURGH.

In a Parliamentary paper just issued containing reports on the sanitary condition of Piershill Barracks, Edinburgh, the Director-General of the Army Medical Service (Sir A. H. Keogh), says that there is nothing specially wrong with the married quarters at Piershill, but with regard to the officers' mess he finds it difficult to express in moderate language the conditions under which the officers are accommodated. Lieutenant-Colonel Melville, R.A.M.C., and Mr. W. C. Tyndale, sanitary advisers to the Army Council, express the opinion in a joint report that, having regard to the present condition of the barracks, they are unfitted for the accommodation of a garrison of the present strength.

FOREIGN MEAT IN THE ARMY.

The question of the supply of foreign meat for the army was dealt with in the annual report of the committee of the Irish Cattle Traders and Stockowners' Association, which was presented at the annual meeting of that body held in Dublin on Dec. 12th. The report says that during the year changes were made in the army meat tender forms, as a result of which the army is now mainly being fed on foreign meat. The committee states that it is its intention unceasingly to endeavour by the force of public opinion to compel the Government to revert to the old system.

THE RUSSIAN MILITARY MEDICAL ACADEMY'S FIRST LADY DOCTOR.

According to the *Novoe Vremya*, L. M. Vlassoff, the first woman to obtain the degree of M.D. from the Russian Military Medical Academy, was definitely confirmed in the said degree by the conference of the Academy on Dec. 1st.

Correspondence.

"Audi alteram partem."

EPSOM COLLEGE.

To the Editors of THE LANCET.

SIRS,—As treasurer of Epsom College permit me to draw the attention of your readers to the urgent need of funds to carry on the work of the Royal Medical Foundation attached to the College. Every year a sum of over £6000 is required to provide pensions of £30 a year each for 50 aged medical men, or the widows of medical men, and to educate, board, and clothe 50 foundation scholars, the necessitous sons of members of our profession. This year the need of funds is more pressing than usual because the council has recently been compelled to spend £8000 on drainage and sanitary works at the College, and as a result, in order to meet this heavy outlay, almost all the investments belonging to the General Purposes Fund have been sold. There are so many deserving candidates for pensionerships and foundation scholarships that great distress would be caused if the numbers we assist were to be reduced; yet the council cannot possibly continue to fill all vacancies as hitherto unless the income of the foundation be maintained. Each year many supporters are lost through death, so that it is essential that fresh annual subscribers should be secured to take their places if the beneficent work of the foundation is to be continued uninterruptedly.

I am, Sirs, yours faithfully,
Dec. 15th, 1906. HENRY MORRIS, Treasurer.

THE INDIGESTIBILITY OF PLUMMER'S PILL.

To the Editors of THE LANCET.

SIRS,—In answer to Dr. Eldon Pratt's inquiry, the patient who voided Plummer's pills, B.P., unchanged per anum was a single man, coming in chamber practice, complaining of walking with difficulty, aged 31 years, with lower dorsal angular curvature since childhood, and with recent paretic signs of paraplegic distribution, which last have not improved under treatment.

I am, Sirs, yours faithfully,
Birmingham, Dec. 15th, 1906. JAMES SAWYER.

THE QUEEN ALEXANDRA SANATORIUM, DAVOS PLATZ.

To the Editors of THE LANCET.

SIRS,—By your courtesy we appeal to all old Davosers to help a bazaar that is to be held in Davos on Jan. 23rd and 24th, 1907, under the patronage of our Gracious Queen. The object of the bazaar is to raise money to push forward the Queen Alexandra Sanatorium. Building has been started and, if funds permit, the first portion may be finished and ready for occupation within a year. The sanatorium is intended for curable consumptives of small means, for whom an Alpine climate may offer the best or perhaps the only chance of recovery. The charges will only be so much as may be necessary to cover the cost of upkeep. The institution is urgently needed and our Gracious Queen has shown her interest in it by help in money, by becoming its patron, and by giving her name to it.

To those whom Davos has helped to regain their health we look with confidence for aid in placing within reach of their less fortunate fellow countrymen the advantages that they were able to procure for themselves. But help is welcome from all, either in the form of money or in the form of gifts for the bazaar. Gifts for the bazaar should be sent as early as possible to Messrs. Sutton and Co., Whitecross-street, London, E.C., who have kindly undertaken to forward them to Davos. Donations will be received and acknowledged, and any further information that may be desired will gladly be given by any of the undersigned.

Your obedient servants,
WILLIAM R. HUGGARD,
H.B.M.'s Consul, Chairman of the Local Board of Management;
(The Rev.) E. GARTH IRELAND,
British Chaplain and Chairman of Committee, Hotel Buol;
(The Hon.) G. F. MCGAREL-HOGG,
Secretary of Committee, Hotel Belvedere.

BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if you will kindly allow me the use of your columns to inform your readers that I am, as usual, very desirous of receiving clothing of any description for ladies or gentlemen for distribution and that the wardrobe is in urgent need of replenishing. I have received many requests which I am unable to comply with satisfactorily.

I am, Sirs, yours faithfully,
26, Linden-gardens, W., Dec. 18th, 1906. EDWARD EAST.

MEDICAL ASSISTANCE TO MIDWIVES.

To the Editors of THE LANCET.

SIRS,—I am directed by a committee of the London and Counties Medical Protection Society, which is considering certain matters affecting the interests of medical practitioners, and arising out of the working of the Midwives Act, to invite members of the medical profession to assist by giving information individually on the following points: 1. The number of instances, in a given time, in which each

medical man has been summoned to the assistance of midwives, sending for him in pursuance of the rules of the Midwives Board? 2. What payment he received in each case, and from whom? 3. What was the nature of each case to which he was so summoned?

Will you kindly allow me to ask your readers to be good enough to send answers to the above questions, authenticated by the name and address of the sender, to me at the offices of the Society, 31, Craven-street, Strand, London, W.C.?

I am, Sirs, yours faithfully,

HUGH WOODS,
General Secretary of the London and Counties Medical Protection Society, Limited.

Dec. 14th, 1906.

THE METROPOLITAN STREET AMBULANCE MOVEMENT.

To the Editors of THE LANCET.

SIRS,—By the appointment of a departmental committee of three—viz., Sir Kenelm E. Digby, K.C. (chairman), the Earl of Stamford, and Sir William Collins, M.P., "to inquire as to the provision made for dealing with cases of accident and sudden illness occurring in streets and public places within the metropolis, and to report," another stage has been reached in the history of the street ambulance movement for London. Almost coincident with this it will be observed that the Corporation of London has been supplied with an automobile ambulance, which though it appeared at the recent Lord Mayor's Show, has not at present been on duty in the streets of the City.

For these signs of coming activity all who are interesting themselves in promoting a more efficient service for the metropolis will no doubt be grateful. It is hoped, and may be expected, that with the opportunities now afforded of obtaining information from experts and others who have given the subject their attention and are practically acquainted with its most recent developments in this country and elsewhere, to present a report upon which action may be taken with as little delay as possible. The deficiencies in existing systems are now generally recognised and a remedy must be found for them with due regard to public economy. Whatever may be said about the remarkable development that has taken place in that kind of assistance to the injured and those suddenly struck down with illness in the streets, information about which may be said to have been popularised and diffused by the excellent instruction given to all classes of the community, men and women, by the St. John Ambulance Association and its medical officers, there can be no doubt whatever that the condition of a large proportion of medical and surgical casualties as now brought to London and to other hospitals is not as it should be, or, as an experienced eye-witness stated in reference to the mode of conveyance, "as very lamentable"; that a considerable proportion of deaths have occurred as the direct outcome of the methods of removal employed, not to say anything of the untold pain occasioned by the process; that in this way limbs have frequently been sacrificed or permanently maimed which otherwise might have been saved. These are facts which have been abundantly testified to by coroners, doctors, and others who either casually or professionally have been brought in contact with persons thus unfortunately situated.

I feel sure that the inquiry which has thus been placed in the hands of a competent and responsible committee will be watched with the keenest interest by the public, the press, and the medical profession.

I am, Sirs, yours faithfully,

REGINALD HARRISON,
President Metropolitan Street Ambulance Association.

Lower Berkeley-street, W., Dec. 18th, 1906.

SCARLET FEVER MORTALITY AND HOSPITAL ISOLATION.

To the Editors of THE LANCET.

SIRS,—It is difficult for a medical officer of a scarlet fever hospital to leave unnoticed the comparisons between "hospital case mortality" and "home case mortality" in scarlet fever given by Dr. H. E. J. Biss in his letter published in your issue of Dec. 15th, p. 1685. This apparently unfavourable comparison is used as an argument by those who decry the value of isolation hospitals, but on proper consideration it is obvious that such statistics are of practically no use. I grant that in many districts (though it is not so in all) hospital case mortality is, as in London, greater than home case mortality; the position, however, is not so simple as appears on the surface.

The following are among the items which make such comparisons unfair. 1. The cases kept at home include: (*a*) very mild cases; (*b*) doubtful cases; (*c*) cases in the homes of the wealthy; (*d*) cases in homes where there are no other children; (*e*) cases in homes where isolation can be carried out; and (*f*) (corollary of *c*, *d*, and *e*) cases in well-nourished, carefully nurtured, and well-looked-after children, brought up in plenty of air space, and in small families, and able to stand an illness well. 2. The cases sent to the hospital include: (*a*) certain, definite, and bad cases, often having a complication on admission; (*b*) cases from the homes of the poor; (*c*) cases from crowded houses; and (*d*) (corollary of *b* and *c*) cases often of ill-fed, unhealthy children, brought up in overfull homes and unhealthy surroundings.

Is it surprising that such home cases do well or such hospital cases do badly? Imagine all the mild and doubtful cases and the healthy children of the well-to-do sent to hospital, and the very bad cases and the children of the poor kept at home. One could get magnificent hospital statistics by such an arrangement and very bad home statistics. In such a district as the one from which I write, where all the cases of scarlet fever, rich or poor, with trifling and insignificant exceptions, go to the hospital, there is no such hospital mortality as that of which Dr. Biss writes. Here the mortality is not 1 per cent. and not so great as in the few exceptions kept at home, although they are mainly the doubtful cases. It is obvious that there is scarcely any disease in which, if the mildest cases and the cases of the well nurtured were kept at home, and the worst cases and the cases of the poor, ill-fed, and overcrowded were sent to hospital, the hospital would not come off second best in statistics. This would manifestly not be a very good reason, however, for doing away with hospitals.

I am, Sirs, yours faithfully,

W. G. WILLOUGHBY, M.D. Lond.

Eastbourne, Dec. 15th, 1906.

THE ELECTION OF DIRECT REPRESENTATIVES.

To the Editors of THE LANCET.

SIRS,—In your article (p. 1671) commenting upon the recent election of Direct Representatives to the General Medical Council you assert that my professional position was impugned during the contest in rather an inconvenient manner. In explanation of this assertion you refer to the warning issued by the General Medical Council to members of the medical profession who accept employment from medical aid associations, that where the touting for membership includes the puffing of the medical officer, the professional position of that officer is endangered. You then state your opinion that no line can be drawn differentiating medical aid societies from provident dispensaries, and your conclusion is that as I am a medical officer to the provident dispensary my position as a member of the General Medical Council may easily become awkward.

In my own name and in that of my colleagues of the medical staff of the Battersea Provident Dispensary I absolutely deny the truth of the middle term of your syllogism. For the last 30 years or more many—I think I may say the majority of—medical men who have studied the subject of medical relief and the abuse of hospitals have held, to quote the words of the resolution unanimously adopted at the conference on metropolitan hospital relief, held on April 17th, 1877, that "free dispensaries should be converted into provident dispensaries and new provident dispensaries should be established in proportion to the wants of the population." I assert that the Battersea Provident Dispensary, which was established in 1844, is properly conducted in the interests of the profession and of the public. The medical staff, of whom I am one, will welcome full inquiry into the mode in which the dispensary is conducted, and are confident that the result of impartial investigation will be to prove the absolute truth of what I here assert.

Had this been purely a personal matter I could have disregarded the innuendo contained in your article, but the terms

employed not only affect the professional reputation of my colleagues on the staff of the Battersea Provident Dispensary, and cast a slur upon a system of medical providence which, in the opinion of those best qualified to judge, ought to be extended and encouraged as the best means of checking that abuse of hospitals which, to an increasing degree in recent years, has so seriously curtailed the sphere of work open to the general practitioner.

I am, Sirs, yours faithfully,
LEONARD STRONG MCMANUS.

Wandsworth Common, S.W., Dec. 17th, 1906.

*** Dr. McManus has misunderstood us.—ED. L.

THE ADMISSION OF WOMEN TO THE DIPLOMAS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—As a lecturer in the London School of Medicine for Women I wish to thank Dr. A. S. Morton for having so clearly and definitely formulated his objections to the admission of women as Members of the Royal College of Surgeons of England and to reply, so far as I am able, to these objections. Several of them apply rather to the admission of women to the medical profession at all, and sound rather belated now that over 700 are actually on the Register, for after all a time must come when a *fait accompli* has, however reluctantly, to be recognised and accepted.

1 and 2. "Women are not admitted to the Church or to the Bar." It is not quite obvious why non-admission to some of the professions should debar from admission to others and it is only natural that medicine, being a more liberal profession and less bound down by tradition and precedent than the Church and the Bar notoriously are, should be the first to admit women to its ranks. Moreover, there are clearly very strong personal reasons why women have a right, if they so desire, to be attended medically by those of their own sex—reasons which apply far less, if at all, to the other two professions mentioned.

3. "They are not admitted to the Royal College of Physicians of London." I wonder if Dr. Morton were asked to state his objections to the admission of women to the Royal College of Physicians he would say "because they are not admitted to the Royal College of Surgeons," and so reason in a circle *ad infinitum*. Everyone, I suppose, will admit that under existing conditions the two Colleges must act together, and that the approval of one to the admission of women must be subject to that of the other, but as the College of Physicians has not discussed the question for over 11 years, and as the majority of Fellows against the admission of women was then only nine, it is clearly impossible now for anyone to say how a vote would go.

4. "They have been refused admission to the Membership of the Royal College of Surgeons of England already by a unanimous vote of the Members." Unfortunately I am not aware what vote is referred to, but at the meeting of Fellows and Members in 1895, at which the question was fully discussed, the voting was 44 for and 58 against! Moreover, what progress should we make in any department of life were we always to be bound by decisions of bygone years?

5. "The competition from even their own sex is already simply disgraceful in certain parts of London and elsewhere."

6. "There are already far too many portals open to women." I am quite unaware of the "disgraceful competition" to which Dr. Morton refers, but even if it be as severe as he suggests it must in due time be cured by the operation of natural economic laws, for, as in all occupations, if women find they cannot get enough work in the medical profession fewer will enter it. In the long run it is merely a matter of supply and demand. Certainly the opening of the London Colleges to women will not appreciably, if at all, increase the competition. It will only mean that a certain number of women will qualify at those Colleges who would otherwise go to the Scotch or Irish ones, to the Society of Apothecaries, or even to one of the Universities. All that women ask, now that after many years of struggling they have gained an established position in medicine, is that "complete equality of opportunity" which is the ideal nowadays in all departments of life and which is denied them so long as they are excluded by the bodies which grant qualifications to the majority of the medical students in this country. The qualifying bodies have, moreover, a duty to the public in this matter; there is now a very definite demand for women doctors, not merely from individual women patients, but from a large and increasing number of public bodies in all parts of the country, which find that women can do certain kinds of medical work at least as well as men. Now the qualifying bodies exist essentially for the benefit of the public and it becomes, therefore, their duty to supply properly qualified women as well as men to meet this demand and any body which refuses to do this is really evading its full responsibilities.

7. "If there had been complete unanimity and combination within the ranks of our profession, which there is not, my own belief is that women would never have been allowed to enter the profession of medicine at all, much less that of surgery." I regret that I cannot follow the argument. To state that if medical men had been unanimously opposed to the entrance of women into the profession they would have been unable to enter it is, I imagine, a truism, but how this dream of a non-existent unanimity can be an argument against the admission of women to the examinations of the Royal College of Surgeons I am unable to conceive.

I am, Sirs, yours faithfully,
Cavendish-place, W., Dec. 18th, 1906. J. WALTER CARR.

THE CLAIM THAT PROF. VON BEHRING HELD HOMŒOPATHIC DOCTRINES.

To the Editors of THE LANCET.

SIRS,—The *Homœopathic World* (published in London), under date Nov. 1st, 1906, publishes what claims to be an extract from Behring's pamphlet, translated from the German, under a headline in capitals: "Professor von Behring acknowledges Homœopathy." From the extract given I make the following extract:—

> I am touching here upon a subject anathematised till very recently by medical pedantry; but if I am to present these problems in historical illumination, dogmatic imprecations must not deter me. They must no more deter me now than they did thirteen years ago, when I demonstrated before the Berlin Physiological Society the immunising action of my tetanus antitoxin in INFINITESIMAL DILUTION (capitals mine).

Of the truth or otherwise of this statement I am ignorant. That being so, may I through you ask those wiser than myself whether Professor von Behring did demonstrate before the Berlin Physiological Society 13 years ago "the immunising action of my tetanus antitoxin in infinitesimal dilution"?

I am, Sirs, yours faithfully,
DAVID ANDERSON-BERRY, M.D. Edin., F.R.S. Edin.

St. Leonards-on-Sea, Dec. 14th, 1906.

ON THE VALUE OF EXCISION OF THE OSSICLES AS A CONSERVATIVE OPERATION.

To the Editors of THE LANCET.

SIRS,—Although the radical mastoid operation is now firmly established among the most valuable operations in surgery it is considered by some surgeons to be performed in some instances unnecessarily. No doubt such an assertion is not altogether without foundation, and it is probable that a certain number of suppurating ears that are too hastily submitted to the radical operation might be cured by perseverance with local treatment. There is, however, a certain amount of justification in the extreme measure, for despite the great advances made by otology during the past quarter of a century, the public are by no means fully appreciative of the grave possibilities which may arise from a discharge from the ear. It is therefore sometimes wiser (especially in hospital practice) to perform the radical mastoid operation and so endeavour to free a patient from the danger he carries in his temporal bone, rather than to run the risk of his ceasing attendance before his discharge is completely cured. In speaking thus allusion is only intended to those conscientious surgeons who first endeavour to relieve their patients by recourse to non-operative or to the lesser operative measures, and not to those who fly at once to extremes in simple uncomplicated cases in order to publish long lists of operative statistics of more or less veracity.

There are, of course, numerous cases which, when they first present themselves, are beyond alleviation by simpler methods and which require something more drastic than mere removal of granulations, enlargement of perforations,

&c. It is these cases which furnish the largest number of radical mastoid operations. Many of them, however, could be saved the pain and tedium of the after-treatment attendant upon the complete post aural procedure by timely excision of the ossicles combined with a thorough removal of the outer attic wall. Possibly there is not an extremely large number of such cases, and possibly some of them may ultimately come to require the more serious operation, but they form a very appreciable item in one's practice and consequently claim careful consideration. The satisfaction of one such case is much greater than that proceeding from three successful mastoid operations.

The chief causes which prevent the healing of a suppurating middle ear are deficient drainage and bone disease. The former may be due to accumulations of epithelial and purulent débris or to the presence of granulations. Granulations (putting aside those due to malignant disease) are the result of neglect or caries. It will often be found that in neglected cases of discharge the removal of granulations and the establishment of antisepsis will speedily be successful. When granulations recur after removal and antiseptic treatment caries may be suspected. Caries when occurring in the middle ear generally affects the ossicles, and of these it is the malleus and incus that suffer, the latter more frequently than the former. The reason for this lies in the arrangement of its blood-supply which, owing to the position of the bone slung between its fellows, is dependent upon the muco-periosteum covering it. The most common sites of ossicular caries are the head of the malleus, the body and long (articular) process of the incus. When occurring in the head of the malleus, or that part of the body of the incus which is adjacent to its articulation with the malleus, caries is usually associated with a perforation in Shrapnell's membrane and is often accompanied by caries of the bony outer attic wall. The anatomical arrangement of the attic does not lend itself to efficient drainage in suppuration in that region, and consequently caries is prone to occur there. When the caries occurs in the long process of the incus it is usually accompanied by a perforation in the posterior superior segment of the membrana tensa, and this perforation is frequently occupied by a small granulation which recurs after removal in spite of careful antiseptic local treatment. Such cases often give very satisfactory results on the removal of the membrane and the two large ossicles. The proximity of the head of the malleus and body of the incus to the aditus ad antrum renders the continuance of caries of these bones very liable to lead to implication of the antrum and caries about the tympanic opening of the aditus. Sooner or later, therefore, mastoid trouble will necessitate the radical mastoid operation, a contingency which it is manifestly the duty of the otologist to prevent.

Another aspect of the matter, and a very important one from the point of view of the patient, lies in the preservation of the hearing. Caries of the ossicles of any extent practically means a break in the ossicular chain, the carious bone acting as a foreign body—a broken link. The vibrations of the membrane and ossicles are thus seriously interfered with and considerable impairment of the hearing function ensues. The removal of the damaged vibratory chain, if skilfully performed, results in the freeing of the stapes so that the sound waves strike directly upon it with considerable restoration of the hearing function. This restoration is further augmented if, either at the time of the operation or, better, later, the tendon of the stapedius muscle is severed. The performance of ossiculectomy therefore has a twofold aim; by the removal of the diseased ossicles and the bony outer attic wall drainage is effectively obtained and suppuration arrested, and by the excision of the damaged chain of structures the hearing function is augmented. The operation need not be described in detail here; the essentials must, however, be given. They are—complete removal of the membrane or its remains, removal of both malleus and incus, thorough removal of the outer attic wall and of any small granulations that may be present, and lastly, careful curetting of the sulcus tympanicus in which the membrana tympani is set. The removal of the bony outer attic wall is accomplished either by the burr or by cutting forceps. Although several burrs have been designed for the purpose I know of none that adequately do the work. I prefer, personally, to use the cutting forceps of Krause, which act on the sliding chisel principle. This instrument, properly and carefully used, will remove the whole attic wall efficiently.

The chief difficulty in the operation of ossiculectomy lies in the hæmorrhage which obstructs the view of the operator. Before the introduction of adrenalin I combated this by packing repeatedly with small pledgets of sterilised wool, but the use of adrenalin (1 in 1000) has greatly facilitated the operation. It is best used by instilling the warm solution into the ear and retaining it for 20 minutes before the operation, and using small wool pledgets soaked in adrenalin from time to time during its performance. It is essential to an efficient operation that the surgeon should be able to see what he is doing as clearly as possible. A considerable experience has convinced me that ossiculectomy is a valuable conservative method, and I believe that if it were more frequently performed and earlier resorted to an appreciable percentage of cases would be saved from the radical operation.—I am, Sirs, yours faithfully,

MACLEOD YEARSLEY, F.R.C.S. Eng.,
Senior Surgeon to the Royal Ear Hospital.

Upper Wimpole-street, W., Dec. 14th, 1906.

DELAYED CHLOROFORM POISONING AND ACETONURIA.

To the Editors of THE LANCET.

SIRS,—Dr. Leonard G. Guthrie, in his letter in THE LANCET of Dec. 1st on Delayed Chloroform Poisoning, blames a pre-existent fatty condition of the liver as the cause of death and points out several sources whence it may be derived. Amongst these sources he mentions sepsis, without, however, specifying acute or chronic. The fact is well recognised pathologically that prolonged suppuration and chronic tuberculous disease produce more fatty degeneration of the liver than acute suppurative conditions lasting a few days; consequently if Dr. Guthrie's theory be correct we should expect to find cases of delayed chloroform poisoning following the former conditions more frequently than the latter, but this is not the case.

In an article on Post-anæsthetic Acetonuria[1] I pointed out that chloroform could be administered to patients with chronic acetonuria (frequently present in chronic tuberculosis and constantly present in chronic suppuration) with no more danger than to apparently healthy patients, provided renal and alimentary tracts were eliminating actively; also that it was in acute suppurative conditions that chloroform was to be feared—that is to say, in the presence of acute acetonuria. The records of the Sick Children's Hospital, Edinburgh, for the last four years show that 83 per cent. of deaths attributed to the after-effects of chloroform occurred in cases of acute sepsis.

Surgeons attached to children's hospitals where chloroform is the anæsthetic employed must have noticed cases where persistent post-operative vomiting occurred and where the odour of acetone was well marked—in fact, mild cases of delayed chloroform poisoning, which could be arranged in definite series from those exhibiting the mildest symptoms up to those that died. I have shown elsewhere that these cases have a definite relation to delayed acetone excretion and delayed chloroform poisoning, but I am anxious to know whether I am right in gathering from Dr. Guthrie's letter that he agrees with Shenk's observation and that the variability of the after-effects of chloroform depends on the degree of fatty liver present at the time, because it follows that in such a series of delayed chloroform poisoning as I suggest above each patient must be suffering from a fatty liver corresponding directly in degree with the clinical manifestations. A point of greater interest than the fatty liver, and one which does not receive sufficient attention, is the fatty degeneration seen elsewhere in the body. Microscopic examination of the heart, blood-vessels, muscles, and kidneys reveals intense fatty degeneration; especially is this the case in the kidneys, where it is if anything more advanced than in the liver. How is this produced? Is there also a pre-existent fatty condition of the kidney and other organs of the body, or is the renal change wholly due to the action of the anæsthetic? I am in favour of the latter view, but the condition requires further practical and experimental investigation before it can be ascribed to antecedent sepsis or cod-liver oil. The experiments carried out by Stiles and Macdonald proved that chloroform was the direct agent causing the fatty change and there is no reason to suppose that their rabbits suffered from starvation, rickets, or any

[1] Brit. Med. Jour., May 19th, 1906.

form of paralysis. Dr. Guthrie deprecates the "kismet"-like attitude of those who believe in idiosyncrasy as a cause of death in delayed chloroform poisoning, but I shall maintain the attitude of the "True Believer" until further evidence is forthcoming to prove that fright can produce fatty degeneration of the liver and kidneys and that no idiosyncrasy is capable of producing death unless a previous morbid condition is present.

I am, Sirs, yours faithfully,

Edinburgh, Dec. 15th, 1906. LEWIS BEESLY.

THE ARMY MEDICAL RESERVE.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "Tommy Atkins," is probably correct in his surmise that only newly qualified men will be eligible for the newly constituted Army Medical Reserve. It would, however, be of little advantage to accept senior men settled in practice or otherwise permanently employed, who even if they could undergo the initial training would be debarred by their civil engagements from discharging the duties they had undertaken to perform in an emergency. Admittedly the initial training seems unnecessarily long for learning such duties as the Army Medical Reserve officers would presumably be called on to perform, and owing to the excellence of the instructional methods at Aldershot a shorter probation should suffice. Large numbers of newly qualified men should take advantage of obtaining a pleasant change and highly interesting experience at no cost to themselves after the stress of examinations or fatigues of a house appointment. At the same time it appears means for supplementing the reserve will be wanted. This purpose could be attained by appointing conditionally supernumerary medical officers to regiments of the auxiliary forces and thus form a register of medical officers available for general duty in an emergency. The Royal Army Medical Corps Militia and Volunteers are not readily available for this purpose, as the companies are quite out of reach of the vast majority of practitioners, but many could conveniently accept medical appointments in local regiments. The appointment in the Militia of quasi-regimental medical officers would be a double advantage, for it would provide for the care of regiments during training in peace and furnish a large number of medical officers on a Militia engagement for war. A sufficient training could be afforded these officers without hindrance to their ordinary occupations.

I am, Sirs, yours faithfully,

Dec. 15th, 1906. SENIOR.

THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

To the Editors of THE LANCET.

SIRS,—In the event of the Education Bill not becoming law this session it is very probable a long period may elapse before a new Bill passes both Houses; therefore would it not be possible for a short Bill to be passed requiring medical inspection of children attending all elementary schools? This is a non-party question, both sides of the Commons being agreed on this point.

I am, Sirs, yours faithfully,

Dec. 11th, 1906. EX-M.O.H.

FATALITIES UNDER ETHYL CHLORIDE.

To the Editors of THE LANCET.

SIRS,—I have given ethyl chloride about 50 times in general practice and have never had the slightest reason for alarm. This is the more remarkable, seeing that at first I gave it in entire ignorance of its extraordinarily rapid action; indeed, I feel a retrospective shudder at the risks my patients must have run while I was waiting for some indication of the existence of anæsthesia. I cannot help thinking that the great, possibly the only serious, danger attending the administration of this agent lies in precisely this want of experience. Even now I should be at a loss to state exactly how I know that the patient is "under." I merely assume that anæsthesia is complete when I have administered four or five cubic centimetres, and if necessary another two or three cubic centimetres, will make it certain. I think that no one ought to use it until they have seen it administered satisfactorily at least once. After two or three abortive attempts to use an inhaler I fell back upon the simple plan of pouring the chloride on a small piece of folded lint held in the hollow of the left palm. This I apply as closely as possible over the mouth and nose and as a rule within 20 seconds the operator can proceed. I have given it in the sitting as well as the horizontal position and in no instance has any untoward symptom presented itself. My only difficulty has been to convince dentists and surgeons unaccustomed to its employment to proceed when I gave the signal, so sceptical have they been of the reality of the anæsthesia.

I am, Sirs, yours faithfully,

Dec. 15th, 1906. A PROVINCIAL G.P.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

A Neglected Workhouse Boy.

THE disclosures at a recent meeting of the Longtown board of guardians show that cases occur from time to time recalling the days of Oliver Twist. James Campbell, eight years old, an inmate of the workhouse at Hallburn, attended the school at Longtown two and a half miles off. The attention of one of the school managers, who is also a guardian, was called to this boy, who had the rash of measles fully out. He had walked two and a half miles, was wet through, his clogs were worn out, so that he must have sat for days in school with wet feet, and his condition was said, as may well be believed, to be "pitiful." He had no buttons on his coat and his shirt was exposed and wet through. Neither this boy nor a younger brother of whom he had to take charge had an overcoat. The former had to wash and dress both his brother and himself and to make their beds, but he will probably have a little rest for the present, as the medical officer sent him in a cab to the workhouse. The head-mistress produced the dinner which these two little waifs brought with them, consisting of "chunks of dry bread, no butter, and a small bottle of milk each." The master of the workhouse is reported as saying that he did not notice the condition of the boy's clogs. The breakfast was dry bread and milk and the same was taken to school. The menu for dinner on his return from school was not given. Nor was it explained why no butter was given, as it is provided for in the dietary. This very unobservant workhouse master escaped with what is described as a severe censure for his neglect "in not seeing that children leave the workhouse for school properly clad," and it might have been added—free from measles. It is not necessary to picture what were the discomforts and wretchedness of these five-mile walks to school and back in wet weather for these two badly clad "children of the State," with their chunks of dry bread and "small" bottle of milk, to feel that such treatment is not likely to result in the sound mind and sound body which the country needs. The case shows how even in these perhaps over-sentimental days we have to be on the watch against downright inhumanity. It may perhaps be of some comfort for the children to know that in future they "shall not have to wash each other or make their own beds," and that those attending school are to have "a more liberal dietary."

Incorrigible.

There is an old woman in Manchester who was arrested the other Sunday night for being drunk and disorderly. It has happened before with her. On this occasion she refused to go, used bad language, struck the policeman, threw herself on the ground, and tried to bite him, and another policeman had to assist in taking her to the police station. On the way there she struggled and spat in their faces. Her police record shows that she had made 161 appearances in the dock, for her career has been rather a long one. She was sent to prison for a month and "went down shouting defiance." But going to prison for a month will do no good. She is a pest to society and there should be power to remove such offenders. They should be kept in an inebriate asylum for their lifetime. It would be the best and in the interests of the poor creatures themselves the kindest thing to do.

A Cat Nuisance.

Most people of normal mental development have more or less sympathy with, and even affection for, horses, dogs, cats, or other domestic pets. Few would object, say, to one cat, even in a small house, but an old man who was brought before the Manchester justices the other day had 16 cats living in the kitchen in orange boxes. The neighbours complained and as far back as November last an order was made to abate the nuisance. The inspector said that there had been no abatement of the nuisance and the full penalty of 20*s.* and costs was imposed. It was said that the owner slept with his cats in the kitchen and, almost superfluously, that he was an eccentric character. It is a curious departure from the usual feeling as to association with cats as pets, for as a rule we see nothing among cats of the comradeship which dogs show so commonly; we never see a "pack" of cats, and if 16 individual interests had to be satisfied the old man would need a good deal of ingenuity.

Epileptic Colony.

The annual meeting of the supporters of the David Lewis Manchester Epileptic Colony was held on Dec. 13th in the Memorial Hall, Manchester. At the close of the first year's working 95 colonists were in residence, whilst on August 31st last there were 150. Of these 61 were adult males and 49 were adult females; there were 20 boys and 20 girls. It is satisfactory to learn that the health of a large proportion of the inmates has considerably improved. There is also a gradually increasing demand for accommodation in the first and second class houses by the better class of colonists. The demand for admission is steady and continuous, so that before long increased accommodation will be required. The medical report by Dr. Alan McDougall stated that the general health had been good. "The children in the licensed school had thriven and proved a strong argument against the plan of treating epilepsy by brain-rest." Among the adults several are now holding responsible posts requiring thought and judgment who were a year ago "almost useless." The meeting was influentially attended and strong testimony was given by Mr. B. W. Levy who presided, by Colonel Dixon, chairman of the Cheshire county council, Dr. J. M. Rhodes, and others as to the value and importance of the institution.

How Scarlet Fever is Spread.

A man and his wife at Sedgley have been fined £5 6*s.* 6*d.* for exposing their children when suffering from scarlet fever. It is stated that owing to the recklessness of these people, and of other parents in the Coseley district, scarlet fever had become epidemic and two of the schools had to be closed. The defendants sent one child to school when ill from the disease and actually sent another out nursing.

Dec. 18th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Royal Southern Hospital Dinner.

THE thirteenth annual dinner of the Royal Southern Hospital was held on Dec. 15th at the Adelphi Hotel, when references were made to the work carried on in the institution. Details were also given by Sir Alfred Jones of the work of the tropical school and of the value of the beds in the special ward devoted to tropical diseases at the Royal Southern Hospital. Amongst the other speakers were Sir Edward Russell, Professor Benjamin Moore, the dean of the Medical Faculty of the University of Liverpool, and Dr. William Carter.

Two Fatal Cases of Anthrax in a Week.

Despite all the warning notices issued by the authorities for the benefit of workers amongst hides, skins, wools, and hair anthrax remains unchecked. Two fatal cases were inquired into by the city coroner last week, another case having occurred since that recorded in THE LANCET of Dec. 15th, p. 1691. The latest case was that of a dock labourer who was engaged on Dec. 6th in stowing cargo on board the steamship *Armenian*, when he was scratched on the shoulder by a nail. On the following day he assisted in placing dry hides in the steamer's hold. Later in the day the shoulder became painful. He was removed to the Royal Infirmary on Dec. 10th and died from anthrax on the following day.

Dec. 18th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Public Health Committee and Pulmonary Tuberculosis.

AT a special meeting of the public health committee of the Edinburgh town council the steps to be taken to cope with pulmonary tuberculosis in the city and the advisability of compulsory notification were discussed. Dr. G M Cullen, the convener of the committee, made an exhaustive statement on the subject. He said that it was recognised by those best qualified to speak on the subject that compulsory notification was absolutely necessary in order to secure to the authorities complete information as to the extent of the evil in their district. The cases notified would be divided into two groups: first, those where the medical practitioner notifying could guarantee that the patients would be properly looked after in their own homes and that adequate precautions would be taken to prevent the reckless distribution of the sputum. In such cases if the family changed its dwelling-place the fact would be notified to the authorities in order that the house vacated should be thoroughly disinfected. The second group consisted of patients not so favourably circumstanced and they would be visited by the inspector under the medical officer of health and care would be taken to disinfect the house and bedding, &c., while instructions would be given as to the precautions to be taken. Notification would locate the advanced cases which were the great danger to the community and could be removed to hospital. In Edinburgh about 400 deaths occurred annually from pulmonary tuberculosis. Allowing three months as the time that an advanced case might survive it would be possible to accommodate all the dangerous cases in hospital if they had 100 beds. The sum of 2*s.* 6*d.* would be allowed for notification and he estimated that the probable expenditure for the first year, including the salary of an inspector and the expense of disinfection, would be £300. He dealt with the suggestion that no provision was made or contemplated for sanatoriums for the cure of "early" cases and contended that the establishment of such institutions was not part of the general scheme of public health administration. The cure was merely incidental. Patients were removed to city hospitals to prevent infectious disease spreading. The authorities were concerned with how to prevent the sputum becoming a source of infection in the city. They left the question of providing sanatoriums for further consideration; it was beyond the scope of notification. It was moved that the committee recommend the council to approach the Local Government Board with the view of having consumption placed on the schedule of notifiable diseases under the Infectious Diseases Notification Act, 1889. This motion was accepted with one dissentient and a second who did not wish to be regarded as bound by the committee's decision.

Dumfries Infectious Diseases Hospital.

A conference took place at Dumfries last week between Dr. W. Leslie Mackenzie of the Local Government Board and Dumfries town council with regard to a site for an infectious diseases hospital, a question which has occupied the attention of the local authority for the last 18 months. The town council fixed upon Castledykes as the site, but this was condemned by public meetings on account of its proximity to the sewage purification works, and Maxwelltown town council, which had proposed to combine, also took exception to the site. Dr. Mackenzie, on behalf of the Local Government Board, recommended the town council to reopen negotiations with the neighbouring authority of Maxwelltown for a new site. After some discussion on the matter, however, the town council determined to ascertain before approaching Maxwelltown town council whether accommodation could be got at the Dumfries and Galloway Infirmary.

Galashiels and Consumption.

At a recent meeting of Galashiels town council a communication was submitted from the honorary secretary of the local branch of the National Association for the Prevention of Consumption asking whether the corporation would grant the use of the small-pox hospital on Weigle Hill as a sanatorium for the treatment of consumptive cases which were considered curable. It was unanimously resolved to grant the request upon certain terms and conditions, on

of which was that all patients would have to be removed immediately and the premises vacated in the event of a case or cases of small-pox occurring within the burgh. The Local Government Board has sanctioned the use of the hospital for this purpose.—The various parishes interested in the Galashiels Combination Poorhouse have at present a scheme in hand which has for its object the providing of an isolation ward for inmates suffering from consumption. This scheme is estimated to cost between £200 and £300.

Interesting Compensation Case.

In Hamilton sheriff court an action has just been decided under the Workmen's Compensation Act which is of considerable interest from the medical point of view. The pursuer, while working in a mine on July 10th last, was struck in the eye by a splinter of coal, which caused him severe pain but did not prevent him from finishing that day and continuing at work till August 25th. He then went to the Eye Infirmary and was found to be suffering from separation of the retina. The defendants held that they were prejudiced by the pursuer's delay but the sheriff found that the injury was due to the accident sustained in the respondents' pit and decided that the applicant was entitled to compensation at the rate of 12*s.* 8*d.* per week.

The Hygienic Institute at Perth.

The Hygienic Institute has been figuring in the sheriff court at Perth in connexion with an action raised against it by a patient for the alleged careless and negligent extraction of 11 teeth. The sheriff granted absolvitor, the decision being wholly in favour of the Hygienic Institute.

Dec. 18th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Health of Dublin.

THE Dublin Sanitary Association has recently called attention to the increase in the number of cases of measles in the city and has requested the sanitary authorities to include measles in the schedule of notifiable diseases, as at present it is included in the Pembroke township. At a meeting of the managing committee of Cork-street Fever Hospital held on Dec. 13th the medical superintendent reported that measles is now prevalent in the city and that if the weather continued to be severe the mortality would probably be high. He states that the number of cases of enteric fever and scarlet fever has declined. As regards tuberculosis Sir Charles Cameron addressed a strong letter to the morning journals of Dec. 13th in which he said that improved sanitation had greatly lessened the mortality from zymotic preventable disease but had left much to be done in reference to tuberculosis. In the ten years ended in 1880 the deaths from consumption were in the ratio of 29 per 10 000 persons living in the Dublin metropolitan registration area, while the deaths from the principal zymotic diseases were 45·2 per 10,000. In the ten years ended 1904 the deaths from pulmonary tuberculosis were 32·9 per 10,000, while the deaths from the principal zymotic diseases were in the ratio of 26·4 per 10,000. The above figures, he says, make it clear that some additional measures to those hitherto employed are necessary to reduce the terrible death rate from consumption and the most urgent necessity in Dublin is the establishment of a sanatorium for patients suffering from that disease.

Belfast Public Health Department.

At the usual weekly meeting of the Belfast public health committee Mr. Conway Scott, C.E., resigned his position of executive sanitary officer, when a resolution appreciative of his services was passed and it was decided to give him a grant of £300 a year as a retiring salary, or rather to recommend the city council to do so. Mr. Scott's resignation is a great loss to the public health department, as he was cast for the part of Mentor to the new medical officer of health's Telemachus. Mr. Scott was an able, efficient, and kindly official who discharged his duties well and who in the late severe criticism poured out on the public health department was never touched. Had the members of the corporation at the head of the health department given their officials more scope and protested against the constant starving of the department some progress would have been made in public health matters in Belfast. It is to be hoped that no attempt will be made to fill up this post with anyone but a thoroughly trained experienced man who has an engineering qualification. It is rumoured that this may not be done, which would be a huge blunder.

Presentation to Sir John Byers.

On Dec. 14th, at a dinner party given by Professor T. Sinclair at his house in University-square, Belfast, Sir John W. Byers was presented by his colleagues on the visiting staff of the Royal Victoria Hospital, Belfast, with a magnificent silver rose bowl, of Irish design on plinth, bearing the following inscription: "Presented to Sir John William Byers, M.D., by his colleagues of the visiting staff of the Royal Victoria Hospital, Belfast, on the occasion of his receiving the honour of knighthood, Dec. 14th, 1906." On the reverse side beautifully engraved is Sir John Byers's crest with motto, "Marte suo tutus." The presentation was made towards the end of the dinner in an extremely complimentary and courteous way by Dr. John Walton Browne, senior surgeon and chairman of the medical staff. In replying, Sir John Byers thanked his colleagues very warmly for such a valuable and beautiful gift which he regarded as the greatest compliment he had received in connexion with the recent honour done him and which he and his wife would hand down to their children after them as a most cherished memento of a very pleasant episode. Any distinction conferred on him, Sir John Byers said, he regarded as done not to himself alone but to the whole staff of the hospital. He referred in very feeling terms to the cordial relations that existed among the members of the medical staff of the Royal Victoria Hospital, to his long friendship with their chairman (Dr. Walton Browne), who was appointed surgeon to the old Royal Hospital when he (Sir John Byers) was a medical student, and to his constant desire that with the gradual evolution of the science of medicine they might found new specialties so as to improve their school from a teaching point of view, organised by men of distinction at the hospital. He believed that their staff was never better manned than at the present time and it was always to be realised that the hope of the future of their medical school in Belfast rested with the younger teachers who were such an extremely efficient body of men. In conclusion, Sir John Byers thanked his old friend and college and hospital colleague Professor Sinclair for his kindness on that occasion. Professor W. St. Clair Symmers expressed on behalf of the medical staff their thanks to Professor Sinclair, their hospitable host that evening.

Ulster Medical Society.

At a meeting of this society which was held in the Belfast Medical Institute on Dec. 13th Dr. John Campbell read a paper on the Use of Rubber Gloves in Midwifery Practice, and showed a hydatid mole, 262 gall-stones recently removed from a gall-bladder, and 802 gall-stones removed from the gall-bladder and cystic duct.—Dr. Darling and Dr. Wilson read notes of a case of Cerebro-spinal Meningitis, from the lumbar puncture fluids of which a pleomorphic diplococcus was isolated. A short discussion followed the reading of these communications.

Infectious Disease in Belfast.

During the last four weeks (week ending Nov. 17th to week ending Dec. 8th) 105 cases of scarlet fever, 30 of diphtheria, 26 of enteric fever, and 41 of erysipelas—that is, 231 in all (there were in the same period in Dublin 129 notifications)—have been notified in Belfast and there also are a widespread visitation of influenza and an epidemic of chickenpox, so that at present Belfast is a hotbed of infectious ailments.

Dec. 18th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Sanatorium Treatment of Tuberculosis in a Hospital.

AT a meeting of the Hospitals Medical Society held on Nov. 23rd M. Barbier recalled the fact that up to the present he had always insisted on the difficulties of treating cases of tuberculosis, such as tuberculous peritonitis or obvious pulmonary tuberculosis, in the sanatorium of the Herold

Hospital. M. Barbier had also drawn attention to the way in which patients relapsed when they returned to the unfavourable surroundings of their own homes. At the meeting in question, however, he said that he was anxious to show two patients who had completely recovered under the conditions mentioned. The one was a case of tuberculous peritonitis with effusion, together with pulmonary tuberculosis and pleurisy, who had been treated in 1902 and 1903, and who had remained up to Nov. 23rd perfectly well despite the fact that he worked in a workshop. His age was 15 years. In another case of a similar nature the same result had followed and M. Barbier therefore considered that even tuberculous peritonitis could be influenced by sanatorium treatment, provided that, as in pulmonary tuberculosis, an early diagnosis was made. The second case shown by M. Barbier was one of obvious pulmonary tuberculosis, bacilli being present in the sputum and destruction of tissue being observed. After being treated for from three to four months he began to respond favourably and at the date of the meeting—i.e., some 11 months from the date of his admission to hospital—he might be considered well, the sputa had disappeared, and the diseased portions of the lung were undergoing fibrous change.

Auto-inoculation of Syphilis.

At a meeting of the same society held on Nov. 30th M. Queyrat showed a patient who had been inoculated on various parts of his body from a syphilitic genital chancre which he had contracted. Papules which did not ulcerate appeared at all the points of inoculation. Similar cases had been shown on previous occasions by M. Queyrat. Histological examination of sections from the papules showed the same structures as in sections from the original chancre. No spirochætæ were seen.

The Struggle against Alcoholism.

A large number of deputies have recently formed an association, under the presidency of M. Ribot, and it was decided that a temperance group of members should be formed in the Chamber of Deputies. At the next meeting of the association a committee will be formed to consider the Government views and those of the Treasury upon the surtaxation of absinthe and beer. M. Breton has already asked for leave to introduce into the Chamber of Deputies a Bill directed against the manufacture and sale of absinthe. It provides that within six months from the passing of the Bill the manufacture and sale of essences and liqueurs with a basis of absinthe shall be prohibited and that those who manufacture, expose for sale, or sell such liquors shall be punished by terms of imprisonment varying from three months to two years, either with or without a fine of from 50 to 10,000 francs in addition.

Dec. 18th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Tuberculous Disease in Children.

AT a recent meeting of the Gesellschaft der Aerzte Dr. H. Salzer showed a girl, six years of age, who was suffering from tuberculosis fungoides of the left knee-joint and both elbow-joints, and had been treated with injections of tuberculin. The history was to the effect that two years ago after a fall the knee became swollen, and swelling of the elbows followed soon afterwards. Within a few months fistulas leading to the bones formed on all the parts affected. An operation was performed but without any benefit resulting. Amputation of the left leg was advised, but the parents refused and sent the child to the hospital. Here Dr. Salzer at once began the injections. When first seen she was very emaciated and her left knee was in a position of rectangular contraction, while all three affected joints were considerably swollen and studded with discharging sinuses. The treatment consisted in extension of the left leg and daily injections of one-tenth of a milligramme of tuberculin with slow increase of the dose, until at last a dose of two milligrammes was well borne. If a general reaction appeared the dose was reduced. This procedure was continued for a period of two months, after which there was a pause of two months and the treatment was then resumed as before. The result obtained was very encouraging. The knee was in a position of extension, free from sinuses, and completely recovered. The right elbow was nearly free from swelling, but two shallow fistulas remained; the left elbow was ankylosed in a rectangular position without any trace of discharge or swelling. Dr. Salzer has treated a number of children on this plan which he believes to be very useful in cases of surgical tuberculosis.

The Vienna Street Ambulance Corps.

A few days ago the "Voluntary Street Ambulance" celebrated the twenty-fifth anniversary of its foundation and compliments were paid to all the medical men connected with it during this quarter of a century. When the corps was founded it had, in spite of its charitable objects, many adversaries but the necessity for it was proved by the fact that its services were required more than 2000 times in its first year and nearly 30,000 times during the present year. The services of the corps are available only in cases of accident, emergency, or attempts at suicide, and its officers render first aid and convey the patient to the nearest hospital. Among the speakers at a dinner given in honour of the corps the president of the Vienna Medical Council emphasised the importance of correct first aid in preventing sepsis and tetanus. The example set by the Vienna corps has been imitated by several other cities. The popular name of the corps is the Rettungsgesellschaft and the lectures on first aid which are conducted by its medical staff are attended by all classes of the population, including working men, students, and ladies. During the festival contributions were received sufficient for commencing the erection of a new station for the corps.

Temperance among Railway Servants.

With a view to encourage temperance among railway servants the Ministry of Commerce has directed all railway companies to provide facilities whereby the men in charge of trains may be able to obtain hot water for tea at each station in winter time. A moderate-sized vessel filled with boiling water will be kept on the engine and tea will be supplied to the men at a very low price. All signalmen, watchmen, pointsmen, and also the higher grades of officials are required to abstain from intoxicants when on duty, whilst engine-drivers in order to prove that they are not addicted to alcohol must provide themselves with a testimonial of good behaviour (*Unbescholtenheitszeugnis*) from the police.

The Treatment of Cleft Palate.

At a recent meeting of the Gesellschaft der Aerzte Professor von Eiselsberg, director of the first surgical clinic of Vienna, read a paper on Operations for Cleft Palate. The two methods mostly used by him were Halsted's and the Billroth-Langenbeck operation. Either ordinary sutures or silver wire and silver clamps might be employed. Of 36 patients operated upon within three years one child died from shock, but in all the others the result was completely successful except in two in which the operation failed because of the wound becoming septic. The operation was therefore repeated with satisfactory results the second time. In one case a plastic operation was performed with mucous membrane taken from the buccal region but the effect was not quite satisfactory on account of a small hole being left.

Extensive Gummata of the Skull.

Professor Lang had recently an opportunity of demonstrating an unusual case of syphilis of the bones, which illustrated the necessity of free excision continued into the healthy bone in cases where surgical operations were required. The patient, who was a woman, 46 years of age, had been infected with syphilis 16 years ago and eight years later she suffered from osteitis of the parietal bone on the right side. In the summer of 1903 she was obliged to undergo an operation because of the continual pain and discomfort caused by the breaking down of the bone. The operation consisted in removing all necrosed bony tissue, including numerous sequestra. The removal was accomplished with the chisel and mallet and a layer of healthy bone one centimetre thick was also taken away. The patient left the hospital with an aperture in her skull measuring 16 centimetres by seven centimetres. The dura mater was exposed and had to be protected by a shield of aluminium. Every few months she re-appeared at the clinic and it was noticed that whilst the dura mater became covered by a thick fibrous plate of scar tissue, which flattened the brain without causing symptoms of compression, several parts of the margin of the bone had repeatedly to be chiselled away, a sign that demarcation had not

yet been complete. The patient was in no way hindered from attending to her usual work and was kept under the influence of potassium iodide and on nourishing diet. The significance of this case lies in the continuance of the disease of the bone in spite of radical medicinal and surgical treatment.

Dec. 14th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Drainage of Cairo.

AT the invitation of the Egyptian Government Mr. C. C. James, a distinguished Anglo-Indian sanitary engineer, is now studying the sanitary conditions of Cairo, and it is to be hoped that this time the Government is in earnest and willing to expend several years' labour and a large amount of money upon the health of the city. The past history of this question is not encouraging, but now that the finances of the country are so satisfactory and the French opposition to any reforms proposed by England has melted away in the *entente cordiale*, the chief difficulties have been removed. Soon after the British occupation of Egypt an epidemic of cholera devastated the country and the newly formed sanitary department was inundated with schemes for removing the sewage of Cairo and the other Egyptian towns. But Egypt was then almost bankrupt and could hardly find money at the end of every month for paying a diminished number of officials, after which financial crisis the troubles in the Soudan absorbed all the attention of the English officials. In 1888 the cholera of five years before could no longer be used as an argument for extracting money from unwilling financial officials and Cairo seemed no nearer a drainage scheme than in the time of Moses who was really the first sanitarian in Egypt. An attempt was indeed made to fill up the open drain called the Khalig which ran through some of the most crowded parts of the city, because at high Nile the inhabitants on its banks used to drink from it, though they were well aware that all the houses on both sides drained their cesspools into it. This reform was prevented at the time by an unworthy intrigue, for it was pretended that the act proposed was contrary to the Mussulman religion and it was in vain that it was pointed out that this canal dated at least from the Emperor Trajan and had absolutely nothing to do with the Prophet and religious observances. Readers may here be reminded that in happier times the Khalig was successfully filled up to the level of the streets and electric tramcars now run along the greater part of it. Unable to soften the heart of the existing Pharaoh and his advisers your correspondent determined to write some letters to a local paper describing the lack of sanitation in Cairo. It was insisted that the whole native population was partly poisoned by breathing air polluted by cesspools, the adults being anæmic and wanting in strength and energy, while the children, who survived in spite of a terribly high mortality, looked pale and unhealthy and were a great contrast to the ruddy, healthy boys and girls who lived in villages beyond the abomination of cesspools. It was also shown that the Nile just above the in-take of the water company was polluted by cesspools draining into it from two palaces, from the dissecting-room of the medical school, and, in fact, with only two exceptions, from every house on the right bank of the Nile which was large enough to boast of a domestic drain. The two exceptions were Kasr-el-Nil barracks and Kasr-el-Aini Hospital, both under English management; the sewage from these was removed daily into the desert. The publication of these facts compelled the Government to act and Mr. Baldwin Latham was invited to visit Cairo and to make a report upon the question. His report was favourably received by the Ministries concerned but the consent of the European powers to the expenditure of money could not be procured. It was then decided to appoint an International Commission, which made an exhaustive report which led to some discussion but to no practical result. In 1899 the Cairo Water Works Company itself proposed to undertake the drainage of the city and a report was drawn up by its manager, Mr. (now Sir) William Willcocks. He was greatly aided by the plans, designs, and estimates which had already been prepared by M. Barois for the International Commission. This scheme proposed to drain Cairo on the separate plan with one system of pipes for sewage and another for storm water, for in Cairo the sewage runs, as elsewhere, for 365 days in the year, while the storm water has to be dealt with for only a few hours on four or five days. The report drew attention to the merits of Shone's ejector system, said to be working satisfactorily in over 100 towns in Europe, Asia, and America. The scheme was not considered sufficiently satisfactory to be adopted partly because as in the case of former schemes, it was felt that the proposers had not had sufficient experience of draining large cities in oriental countries. After slow deliberation the wise choice has been made of a competent expert who after profound study will propose and carry out a measure which must redound eventually to the credit of the British occupation. It is only fair to remind readers that most of the large hotels in Cairo and many of the modern houses in the European quarters are furnished with a system of cesspools well shut off from the inhabitants and infinitely superior to those in many undrained continental cities.

Dec. 11th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Cost of the Suppression of Plague.

A RETURN relating to the expenditure in connexion with the suppression of bubonic plague in New South Wales has been presented to Parliament. The total amount expended was £250,115. The Board of Health and other Government departments spent £215,539. The rest was credited to the Sydney Harbour Trust.

Miner's Disease.

Dr. Walter Summers has made a further report on miner's disease at Bendigo for the Wilson Trust. The mortality from lung disease has increased from 77·0 per 10,000 in 1875 to 204·4 in 1905, and tuberculous disease accounts for most of the increase, being nearly three times as prevalent. The mortality from consumption amongst occupied males of all classes in the whole of Victoria in 1905 was 20·8 per 10,000. During the last 18 months the death-rate has been especially great and is in excess at Bendigo in non-miners as well, particularly in miners' wives. The average age of death among the quartz miners was about 50 years. Dr. Summers finds that the disease is not primarily tuberculous but is a fibroid change produced by inhaling dust and is quite a local condition at first, the men's general health being good and the only trouble being breathlessness. Later tuberculous infection occurs. Only 47 per cent. of those affected are actually tuberculous, but all who die from miner's disease die tuberculous. The average time of working before the miners are compelled to stop by ill health is 22 years; the duration of life subsequently to tuberculous infection is five years. Dr. Summers finds that the resisting power of the average miner at Bendigo, as indicated by the opsonic index, is the same as that of ordinary folk. The irritation of the lungs by dust lowers the resistance of these organs to invasion by the tubercle bacillus. The rock of the Bendigo goldfield is hard silurian and much rock drilling and blasting are necessary to get at the quartz. The dust produced is very fine and remains suspended in the air a long time. After death the lungs of miners, even after many years, contain dust particles enveloped in fibrous tissue, and on examination it can be recognised and on chemical analysis is found to be the same as the rock of the mines. Hence the most important preventive measures are the suppression of dust and improved ventilation. Compulsory notification and destruction of sputum, with provision of homes for such cases as in the opinion of the board of health should be segregated as being otherwise a menace to the community, are the other measures recommended by Dr. Summers to prevent the spread of tuberculous lung disease in the mines.

The Duties of Health Officers.

At a recent meeting of the Board of Health of Victoria a motion was submitted to consider the question of appointing health officers who would give their whole time to their duties and be adequately remunerated. The chairman seconded the motion and it was carried.

Pure Food Regulations.

The Food Standards Committee has recommended the following definitions and standards:—

"Infants foods" are foods described or sold as articles of food speciall

suitable for infants of 12 months of age or less. Standard: they shall contain no wood fibre, no preservative substance, and no mineral substance which is insoluble in acid; and, unless described or sold specifically as foods suitable only for infants over the age of seven months, shall, when prepared as directed by any accompanying label, contain no starch, and shall contain the essential constituents and conform approximately in composition to normal mother's milk.

Colouring substance: the addition to food substances of colouring substances containing arsenic, antimony, beryl, chromium, cobalt, copper, iron, lead, manganese, tin, zinc, or a compound of any of these elements, is prohibited.

Medical Reciprocity.

The second reading of the Bill to amend the Medical Practitioners Act so as to provide for reciprocity was carried in the Legislative Assembly on Oct. 23rd. The Bill was then considered in committee, but after some discussion was adjourned.

St. John Ambulance Association.

The sixteenth annual report of the New South Wales centre of the St. John Ambulance Association, presented to a crowded annual meeting, stated that the progress during the year had been exceptional and that the average number of members enrolled in classes had been much larger than hitherto. During the year 53 "first-aid" and home nursing classes had been held, an increase of 16 over the preceding 12 months. 1019 men had attended a full course of instruction in connexion with these classes, making a total of 11,242 instructed since the formation of the New South Wales centre. Of the number attending the classes during the past year 725 had gained certificates.

Friendly Societies.

A meeting of the Port Melbourne branch of the Australian Natives' Association was held on Oct. 12th to consider a scheme for establishing a medical institute instead of the present system of having lodge surgeons. It was stated that the lodge members in the district were dissatisfied with the frequent changes in the surgeons and that they were being sold to the highest bidders and were the servants instead of the masters of the medical men. The lodges in Port Melbourne by combining could have the entire services of two surgeons and save £400 a year. It was decided to appoint delegates to attend a conference of all the lodges to consider the matter further. In the debate it was stated that the Brunswick Medical Institute was a success but it may be questioned whether it is. They had practically no choice in selecting their two surgeons (only two applying). The profession strongly objects to these institutes the members of which save at the expense of their medical officers, and the surgeons to the Brunswick Institute are not met in consultation.—At a recent celebration of an I.O.O.F. lodge the Grand Secretary stated that the total membership of the Order in the Commonwealth was 301,326 with a capital of £3,474,179. The membership of the M.U. Order has increased from 2854 in 1864 to 25,367 last January. 21 friendly societies in New South Wales contain 93 478 members and have a capital of £843,357.—The right of a member of a friendly society to go outside the regulations of the Order and appeal to the law courts was considered by the Full Court of New South Wales on Oct. 25th. A member claimed sick pay and damages for wrongful expulsion from his lodge and the judge in the district court awarded him £30 for sick pay and £10 compensation for expulsion. The trustees of the lodge appealed to the Full Court on the ground that the member had not exhausted the remedies provided by the constitution and rules of the society for the settlement of disputes, and that the district court had no jurisdiction. The Full Court decided that the member having taken no steps to have his claim settled by the Grand Council of the Society had lost all the rights he might have had and could not now invoke the aid of a court of law, and the verdict of the district court, so far as the £30 were concerned, was set aside. As to the expulsion claim the judge in the district court had jurisdiction, and the court saw no reason to hold that his decision was erroneous and the verdict for £10 would stand.

An Alleged Cure for Epilepsy.

At the district court, Melbourne, recently Richard Wallace and Howard Freeman, trading as "The Freeman and Wallace Electro-Medical and Surgical Institute," were sued for the recovery of £10. The plaintiff said that he had suffered from epilepsy for years and the firm guaranteed to cure him for £40, paid down. He paid a deposit of £10 but did not receive any treatment. Medical evidence was given that it was not possible to guarantee to cure in cases of idiopathic epilepsy. A verdict was given for the amount claimed, £10, with £6 14*s.* 6*d.* costs.

Appointments.

Dr. R. A. Fox has been appointed medical officer of the Rookwood Asylum, New South Wales.—Dr. Donald Wallace has been appointed senior medical officer of the Coast Hospital, Sydney.

Obituary.

Mr. George Edward Rundle died at his residence, Pott's Point, Sydney, on Oct. 16th from heart disease in his sixty-first year. He was a son of Dr. Rundle of Gosport, Hampshire, where he was born, and received his medical education at University College, London, and the University of Edinburgh. He arrived in New South Wales in 1878 and practised at Hilliston, Tenterfield, and Darlinghurst. He was a trustee of the Sydney Museum and had been president of the Zoological Society for several years.

Nov. 13th.

Obituary.

JOHN ACKERY, M.R.C.S., L.D.S. ENG.

IT is with regret that we record the death of Mr. John Ackery, which took place at his residence in Queen Anne-street on Dec. 10th. The death was so unexpected and so tragically sudden that it came as a shock to his many friends, for no one in the dental profession was more beloved than John Ackery.

Mr. Ackery was born in 1857 and received his professional training at Middlesex Hospital and the Dental Hospital of London, at which latter institution he had filled the posts of demonstrator and assistant house surgeon. He gained his L.D.S. diploma in 1878 and then joined the late Mr. Alfred Coleman and Mr. Ewbank, subsequently becoming, like them, dental surgeon to St. Bartholomew's Hospital. This long connexion of the practice with St. Bartholomew's Hospital is now severed. In 1880 he became a Member of the Royal College of Surgeons of England and was soon absorbed in a busy practice, his skill in his profession and his natural charm of manner bringing him many clients. Busy as he was he always found time for any work for the welfare and advancement of his profession. From 1889 to 1900 he was continually on the executive of the Odontological Society of Great Britain, becoming President in the last-named year. Much of the work of removing the society to its present home in Hanover-square was accomplished during his year of office and the time and labour which he expended are only known to those who assisted him. As a member of the representative board of the British Dental Association he also did good service, but it was as honorary secretary of the Benevolent Fund of the association that his name will be chiefly remembered and beloved. He found the fund in a languishing condition; he handed it over to his successor in a flourishing and healthy state. No work could better stand as his monument. As a man he was radiantly cheerful and energetic, keenly considerate of the feelings of others and the soul of honour. It may be said without exaggeration that his death is felt by the dental profession as nothing short of a calamity.

The funeral at Nunhead was attended by representatives of the Odontological Society, the British Dental Association, the Benevolent Fund, St. Bartholomew's Hospital, and the Royal Dental Hospital. A memorial service was held simultaneously at the Church of St. Bartholomew the Less which was attended by many professional friends.

WILLIAM STOTT STEELE, M.D. ST. AND., M.R.C.S. ENG., L.S.A.

Dr. William Stott Steele, who died at St. Mary Church, South Devon, on Dec. 1st, was the third son of the Rev. J. W. Steele, vicar of East Harlsey in the North Riding of Yorkshire. He was born at Harlsey vicarage in the year 1829 and when 15 years of age was apprenticed to Dr. J. Dunn of Wakefield. After completing his apprenticeship he entered Guy's Hospital as a student and in 1850 obtained the diplomas of M.R.C.S. Eng. and L.S.A.; in 1879 he received the M.D. degree of the University of St. Andrews. For some years Dr. Steele practised at Boroughbridge in Yorkshire, succeeding to his uncle's extensive practice, and was

presented with a service of plate and a testimonial as a mark of sincere regard from his patients on leaving that district to go to St. Mary Church to take the practice of the late Mr. William Pollard, to which was added that of Mr. Chilcote on the death of the latter in 1886. For several years he was chairman of the sanitary committee in the days of the old St. Mary Church local board. In addition to holding the appointment of medical officer to the St. Mary Church district of the Newton Abbot union he was honorary medical officer to the St. Mary's Roman Catholic Orphanage, the Home of Rest for Women in Business, and the Mortonhampstead Convalescent Home. Dr. Steele was a widely read and cultured man as well as a keen musician, being a skilled flautist. He was a fine example of the old-fashioned general practitioner, a friend and an adviser of those in need, a man of sterling uprightness, and one who did his best for those who sought his aid—one, in fact, who tried to uphold the noblest traditions of his profession. His motto was, "Love thy neighbour as thyself." He leaves a widow, three daughters, and three sons, two of whom follow their father's profession.

JAMES GRAY, M.A., M.B., C.M. EDIN., F.R.C.S. EDIN.

Dr. James Gray, a rising young Dundee surgeon, was found dead in bed at his residence in South Tay-street on Dec. 7th. On the previous night he had been in his usual health and had visited several patients. Dr. Gray, who was 34 years of age, had had a brilliant career at the Universities of St. Andrews and Edinburgh, and graduated at the latter as M.B., C.M., with honours in 1895. Returning to Dundee in 1899 he built up a large practice for himself and he also received the appointment of assistant to the professor of surgery at the Dundee College. He was assistant surgeon at the infirmary and on the day before his death had been reappointed to this post.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having previously passed the final examination in medicine, surgery, and midwifery, and having now complied with the by-laws of both Colleges, on Dec. 13th received the diplomas of L.R.C.P. and M.R.C.S.:—

John Prescott Hedley, Cambridge University and St. Thomas's Hospital; and Alfred Geddes Tresidder, London Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Council of the above College on Dec. 13th conferred the diploma of Fellow on 17 candidates who had successfully passed the final examination held on Nov. 23rd, 26th, 27th, 28th, 29th, and 30th, for which 48 candidates presented themselves. The following are the names of the gentlemen on whom the Fellowship was conferred:—

Edward Henry Douty, M.R.C.P., M.A., B.C., M.D.Cantab., M.D. Paris and Lausanne, Cambridge University and Middlesex Hospital; William Jones Richards, L.R.C.P., M.R.C.S., St. Bartholomew's Hospital; Hugh Morriston Davies, M.A., B.C. Cantab., M.R.C.S., L.R.C.P., Cambridge University and University College Hospital; Arthur Marcellus de Silva, L.R.C.P., M.R.C.S., London Hospital; Alfred Edward Johnson, M.B., Ch.B. Vict., L.R.C.P., M.R.C.S., Manchester University; Gwynne Evan Owen Williams, M.D., B.S. Lond., L.R.C.P., M.R.C.S., University College Hospital; William Gordon Taylor, M.A. Aberd., M.S., M.B., B.Sc. Lond., L.R.C.P., M.R.C.S., Middlesex Hospital; Bernard Beryl Riviere, L.R.C.P., M.R.C.S., St Bartholomew's Hospital; Henry Gilbert, M.B., B.S. Melb., L.R.C.P., M.R.C.S., Melbourne University and London Hospital; Harold Pace Gibb, B.A. Cantab., L.R.C.P., M.R.C.S., St. Bartholomew's Hospital; Robert Foster Moore, M.A., B.C. Cantab., L.R.C.P., M.R.C.S., St. Bartholomew's Hospital; Ernest Cranmer Hughes, M.A., B.C. Cantab., L.R.C.P., M.R.C.S., Cambridge University and Guy's Hospital; Harold Turley Mant, M.B., B.S. Lond., L.R.C.P., M.R.C.S., University College Hospital; Robert Milne, M.B., B.S. Lond., L.R.C.P., M.R.C.S., London Hospital; Walter William Moore, M.B., Ch.B. New Zealand, L.R.C.P., M.R.C.S., New Zealand University and Middlesex Hospital; Reginald Affleck Greeves, M.B., B.S. Lond., M.R.C.S., L.R.C.P., Guy's Hospital; and Percy Kingsley Steele, M.B., Ch.B. Vict., L.R.C.S., M.R.C.S., Leeds University.

The following gentlemen having successfully passed the examinations for the Licence in Dental Surgery and having complied with the by-laws, the Licence has been conferred upon them by the Council of the College:—

Matthew Alexander, Liverpool University; Arthur Raymond Burnett Allen, Manchester University; Albert Edward Stead Austin, Charing Cross and Royal Dental Hospitals; Francis William Bartle, Guy's Hospital; Russell Beadnell-Gill, Guy's Hospital; Frederick Augustus Beckley, Guy's Hospital; Howard Dennis Clapham, Charing Cross and Royal Dental Hospitals; Samuel Sugden Cooper, Charing Cross and Royal Dental Hospitals; Edward Leslie Councell, Liverpool University; Gwilym Llewelyn Davies, Guy's Hospital; John Richard Doren Ditch, Guy's Hospital; John Hutchison Rodney Edward, Manchester University; Gordon Fryer, Middlesex and Royal Dental Hospitals; George Burt Geake, Charing Cross and Royal Dental Hospitals; Frank Giles, Guy's Hospital; John Perrins Glassington, Middlesex and National Dental Hospitals; Trevor Griffiths, Charing Cross and Royal Dental Hospitals; John Ernest Hanna, Guy's Hospital; Edgar Houghton, Manchester University; Percy Edward Howard, Middlesex and National Dental Hospitals; Arthur Edmund Ironside, Charing Cross and Royal Dental Hospitals; Herbert Eyre Jackson, Charing Cross and Royal Dental Hospitals; Charles Evan Lloyd, Guy's Hospital; Maurice John Maguire, Charing Cross and Royal Dental Hospitals; Ivor Margolies, Guy's Hospital; Herbert Reginald Mays, Manchester University; Claude Miller, Charing Cross and Royal Dental Hospitals; Frederick Cecil Nichols, University College, Bristol; Reginald Joseph Oliver, Guy's Hospital; George Packham, Guy's Hospital; Arthur Henry Pickett, Guy's Hospital; Ronald Richard Bertram Ponder, Guy's Hospital; Edmund Louis Renton, Charing Cross and Royal Dental Hospitals; Norman Vaughan Hurry Riches, Guy's Hospital; Oscar John Roots, Guy's Hospital; Walter Duckett Southern, Charing Cross and Royal Dental Hospitals; Norman Yorke Tessier, Charing Cross and Royal Dental Hospitals; James Garfield Townsend, Charing Cross and Royal Dental Hospitals; Gladstone Warren, Guy's Hospital; Bargrave Lancelot Weaver, Guy's Hospital; and Stephen John Wright, Birmingham, University.

UNIVERSITY OF LIVERPOOL.—At a meeting of the Senate, held on Dec. 19th, the following were awarded diplomas in tropical medicine:—

H. G. Bennetts, M.B., Ch.M. Sydney; R. M. Carter, M.R.C.S., L.R.C.P.; R. W. Clements, M.B., B.Ch. Royal Univ. of Ireland; A. W. Sampey, L.R.C.P. & S. Ireland; A. E. Smithson, B.A., M.B., B.C. Cantab.; and J. van S. Taylor, L.R.C.P. & S. Glasgow.

TRINITY COLLEGE, DUBLIN.—At examinations held in Michaelmas term for the diploma in public health the following candidates were successful:—

Part I.—William J. Powell.
Part II.—Joseph T. Wigham and Henry Knaggs.

UNIVERSITY COLLEGE (UNIVERSITY OF LONDON).—The Council has received with the deepest regret news of the death of the treasurer of the College, Sir Richard Farrant, and has adopted unanimously the following resolution:—

That the Council of University College, London, desire to convey to Lady Farrant and the members of the family their respectful sympathy on the death of Sir Richard Farrant. They desire also to place on record their high appreciation of the loyal and devoted services of Sir Richard to the College since his appointment as treasurer in the year 1901. At the time of Sir Richard's appointment the College finances were in a critical condition; it was owing largely to his initiative that the appeal for the Fund for Advanced University Education and Research was instituted and the success with which it met made the incorporation of the College in the University a possibility. Sir Richard Farrant's name will always be connected with the scheme of incorporation, the policy of which he so actively furthered. In the annals of the College his name will occupy a prominent place and his memory will be held in the highest regard by those who looked up to him for stimulating and sagacious encouragement, which he never failed to give them, convinced as he was of the righteousness of the cause which he advocated with such deliberate steadfastness.

—Sir Victor Horsley, who has resigned his posts as professor of clinical surgery and surgeon of University College Hospital, has been appointed by the Council consulting surgeon of University College Hospital, and the title of emeritus professor of clinical surgery has been conferred upon him. The Council has conferred upon Mr. Bilton Pollard the title of professor of clinical surgery. Mr. Wilfred B. L. Trotter has been appointed surgeon to University College Hospital. Dr. J. M. Hamill has been reappointed Sharpey scholar.

A GARDEN SUBURB SCHEME FOR THE MIDLANDS.—Another scheme for a garden suburb has been started. It aims at establishing a large model village on the outer fringes of Wolverhampton, the capital of the Black Country. It is proposed to carry out the scheme on an estate of about 400 acres belonging to Sir Richard Paget. The centre of the estate is two miles from the centre of the town and lies at the high altitude of from 450 to 500 feet above sea level. It is well timbered and picturesque in character, although a considerable part of it is within a mile of large industrial works. The design of the whole area is being prepared in advance on what has come to be known as garden city principles, and sites will be sold under covenants which, while giving full security to the individual, will prevent haphazard speculation to the public

detriment in the future, while it is hoped to make arrangements ultimately to give the community sufficient control over the area to be developed, including all open spaces, to enable it to prevent overcrowding and to secure permanence to the principles underlying the scheme. It is also proposed to hold a model housing exhibition on the estate in 1907, particulars of which can be obtained from the secretary, Gresham Chambers, Lichfield-street, Wolverhampton.

EPSOMIAN CLUB.—The thirtieth annual meeting of former pupils of Epsom College, held at the Trocadéro Restaurant, Piccadilly-circus, London, on Dec. 13th, was a notable one in its annals. Sir William Selby Church, as chairman of the College Council, and Sir Richard Douglas Powell, President of the Royal College of Physicians of London and a member of the Council, were both present. The occasion was taken advantage of to present Mr. Henry Morris, President of the Royal College of Surgeons of England and treasurer of Epsom College, with a congratulatory address from the club, of which he is an original member and treasurer. Amongst the Epsomians present there were many members of the staffs of the London hospitals, including Dr. Frederick Taylor, Dr. R. Boxall, Dr. W. E. Wynter, Dr. H. Campbell Thomson, Mr. E. M. Corner, Mr. G. E. Waugh, and Mr. H. A. T. Fairbank.

WHITBY COTTAGE HOSPITAL.—The annual meeting of the supporters of the Whitby Cottage Hospital was held on Dec. 15th. A number of notices of motion had been received, including one from members of the honorary medical staff, namely:—

> That the out-patient department shall be limited to those who had been in-patients of the hospital and require further attendance and to those who had not been in-patients but who are recommended by a medical man, except in urgent accident cases.

The honorary legal adviser (Mr. W. S. Gray) contended that the proposition interfered with Rule 11, and in this contention he was supported by Mr. E. H. Chapman, barrister. After two hours' discussion an amendment, proposed by Canon Austen and seconded by Lord Normanby, was carried by 37 votes to 1 empowering the committee to consider the question further. The whole of the medical gentlemen present thereupon left the room and subsequently the following sent in their resignations as members of the honorary medical staff of the hospital:—Mr. J. Stonehouse, Dr. G. B. Mitchell, Dr. W. E. F. Tinley, Mr. H. H. Raw, Dr. Fergusson, Dr. W. H. Wilson, Dr. J. G. Ross, Mr. C. F. Burton, Dr. Baines, Dr. English, and Dr. R. W. Mead. It was unanimously decided to adjourn the meeting for a week to enable the committee to have a conference with the honorary medical staff. The contention of the latter was that patients who could afford to pay a medical man for services were admitted to the hospital free or on payment of a fee which went to the funds of the institution, and that by this means the medical men were deprived of patients and their fees.

COMPLIMENTARY DINNER TO DR. JOHN LINDSAY STEVEN.—On the occasion of his transference from the Royal to the Western Infirmary, Glasgow, as successor to the late Dr. James Finlayson, Dr. Lindsay Steven has just been entertained at a complimentary dinner by his 23 old resident assistants in the Royal Infirmary. The dinner took place on the evening of Dec. 11th in Ferguson and Forrester's Restaurant, Buchanan-street, Glasgow. There were present 11 of the old residents. Dr. Archibald Young as first of the 23, in chronological order, was in the chair and gave the toast of the evening, "Our Guest, The Chief." He particularly referred to the enthusiasm of Dr. Steven in all his work, to the generous appreciation that he always showed of his assistants' help, and to his unfailing kindly interest in all his residents, both during their tenure of office and in their subsequent career. He read numerous letters and telegrams received from old residents who from various causes were prevented from being present, and conveyed to Dr. Steven the good wishes of all for the success of his new clinique in the Western Infirmary, suggesting the motto, "*ἀεὶ ἀριστεύειν, καὶ ὑπείροχον ἔμμεναι ἄλλων*," as the actual, if unintended, spirit moving behind all Dr. Steven's endeavours. A special decorative menu card had been prepared, showing on the front a photograph of Dr. Steven and on the back a view of the Royal Infirmary. Dr. Steven replied in an eloquent and reminiscent speech, concluding with a reference to the Baconian view that "a man lives again in the hearts of his friends." He felt that if his influence, such as it was, did indeed in some measure continue to act in the hearts of his old residents, scattered now in so many parts of the world, it was surely something to live for and to make life more than trivial. A most enjoyable evening was spent by all and arrangements were made for sending friendly messages to all the absent members of "the brotherhood of the 23."

HEALTH MATTERS IN SIERRA LEONE.—The Sierra Leone Blue-book, just received at the Colonial Office from the Governor (Mr. H. E. Leslie Probyn, C.M.G.), includes much information bearing on the health and sanitation of the colony. The population at the close of 1905 amounted to 76,384; the death-rate for the year was 28·2 per 1000, and the birth-rate 18·3 per 1000. In Freetown, where the figures are more trustworthy than in the other districts of the colony, the death-rate was 29·6 per 1000 and the birth-rate 17·8 per 1000. Apart from the deaths under the age of five years (36·5 per cent.) the principal causes of death are debility, respiratory diseases, and diseases of the alimentary system. Deaths from debility and respiratory diseases predominate in the earlier part of the year, owing to the prevalence of very strong Harmattan winds. The causes ascribed for the high infantile death-rate are the employment of untrained or improperly trained midwives and ignorance on the part of mothers as to the proper feeding and up-bringing of children. The deaths among Europeans during the year were only eight. Only five of these occurred among the European population resident in Freetown, being at the rate of 18·5 per 1000, the lowest recorded for many years; excluding one death from rheumatic fever and one from chloroform poisoning a death-rate is obtained of only 11·1 per 1000 from climatic causes. The expression, "White Man's Grave," as applied to Sierra Leone, is, says the report, a most misleading description, for with the exception of the Gambia Sierra Leone (especially the Protectorate) is probably much more healthy than any other British colony on the West Coast, not excluding Northern Nigeria. During the year an experiment was made upon one of the five streams traversing Freetown from the mountain in order to ascertain whether, by constructing a small channel in the middle of the stream, the presence of stagnant water in the bed of the stream during the dry season could be drained off. The experiment was a success and one large breeding-ground of mosquitoes was thus destroyed. No progress was made in solving the difficult question of sewage disposal. From experiments made during the wet season by burying sewage in trenches and recording the period needed for nitrification it was found that sewage could not be disposed of by earth burial owing to there not being sufficient suitable soil in the vicinity of the city. During the latter part of the year there was a very serious epidemic of small-pox in Freetown and the surrounding country with the result that for a considerable period the small-pox hospital was seriously overcrowded. There were 629 cases admitted for treatment, of which number 130 died—a remarkably low proportion when the serious nature of many of the cases and the advanced stages in which they were admitted are taken into account. An ordinance was passed by the legislature giving the necessary powers for enforcing sanitation in towns and for coping with epidemics. By this law the Government is empowered to declare buildings to be isolation buildings for the accommodation of labourers whose services are required "in or about ships or for the carriage of goods from any infected area." As an illustration of the extraordinary authority and power which a properly selected headman or chief has over his tribe the fact is cited that during the small-pox epidemic the head krooman was able, with slight assistance from the Government, to keep the 200 kroomen in a compound in complete isolation. All these kroomen were vaccinated, and as they were kept in isolation they were able to load and unload the ships without causing the latter to be regarded by other coast governments as having touched at an infected port. With a less capable headman, however, the tribal authority would have been insufficient and the isolation would have been incomplete. It was to meet this contingency that the new ordinance was framed. The principal medical officer draws attention to the remarks of the surgeon in charge of the Colonial Hospital, Freetown, on the great advantage which has accrued from the presence of a resident European matron, and the opinion is expressed that, although the native female nurses require an infinite amount of patient supervision, there is every reason to believe that competent nurses can be trained in the hospital who will be equal to the duties devolving

upon them. In all the Government hospitals and dispensaries in the colony prior to 1905 drugs were issued free of charge. It was found, however, that in the case of Freetown this practice was much abused, many persons attending the dispensary who could well afford to pay. A new departure was therefore made during the year in the case of the Freetown and Sherbro dispensaries by charging a small sum for medicines in such cases. In the more remote dispensaries medicines are still issued free of charge.

STRINGENT ORDER TO CALISCH (RUSSIAN POLAND) MEDICAL MEN.—The temporary Governor-General of Calisch has issued a stringent order requiring all medical men or their assistants, whether in treasury, public, or private practice, in case of the arrival in hospital or other retreat of patients wounded by firearms or explosives to notify the police thereof at once. The order applies equally to cases in which the medical adviser may be called to private houses. Those who fail to comply with this order will be charged as concealers of crime and will be liable to three months' arrest, according to the *Torg. Prom. Gazeta*, or a fine up to £300.

HAYWARDS HEATH COTTAGE HOSPITAL.—This hospital was formally opened on Dec. 13th by the Hon. Mrs. Sergison in the presence of a large company from all parts of the district. Mrs. Sergison, who was accompanied by Captain Sergison, J.P., was received by Mr. A. Spicer, J.P., the President, and the honorary secretary, Dr. Percy Newth. The Rev. T. G. Wyatt, vicar of Haywards Heath, conducted a short dedicatory service. The hospital has been receiving patients for the last six months but has already been found to be too small for the local requirements, and the adjoining house has accordingly been added. The hospital supplies a long-felt want at Haywards Heath, and in the short time during which it has been open has already been able to alleviate the sufferings of many. The hospital now has 12 beds and a well-equipped, up-to-date operating theatre, and is in every way well suited for its purpose.

MEDICO-LEGAL SOCIETY.—The last ordinary meeting for this year was held on Dec. 11th, Mr. Justice Walton, the President, being in the chair. Dr. Stanley B. Atkinson read a paper on Some Limitations of Medical Evidence. Such limitations were shown to arise in two directions: (1) from a lack of medical knowledge either relative and self imposed by the unskilfulness of the witness or absolute from the uncertainty of normal or pathological facts; and (2) from the policy of the law which, in certain cases, refuses certain presumptions which it sets up to be modified in the light of medical evidence. In the subsequent discussion Dr. F. S. Toogood related experiences showing the difficulty in diagnosing malingering and the tragic consequences which may follow an undue scepticism in such cases. Dr. James Scott said that there were certain clinical conditions which were not subject to experimental test; thus it would be impossible to allow a would-be suicide to prove her mental condition by an act. Dr. W. Wynn Westcott thought that medical jurisprudence might be called "the science of least perfect definitions"; year by year, however, facts were becoming more trustworthy because better known and understood. Dr. F. J. Smith feared that in order to save the feelings of friends a full post-mortem examination was not demanded in certain deaths from a doubtful cause; in this way a medical man's limitations were deliberately exaggerated. It was unwise to say a man did die from a certain morbid condition which existed in his organs; usually all that could be said was that such a condition was present when the man died. The continental systems of codifying law and laying down arbitrary but definite limits on certain disputed topics saved much perjury and time. Dr. C. H. Wise had found in dealing with medical certificates that one's view as to what they should state varied as one received or gave such documents. Mr. Schröder held that coroners had no power to hold an inquest in cases where death could be explained "at a glance"; their function was to inquire "where the cause of death is unknown." Dr. S. Melville believed that most malingerers could be weeded out by a drastic but harmless routine treatment. Mr. W. E. Singleton suggested that errors of observation might result from allowing unskilled helpers to perform the detailed investigation. The President, in summing up the discussion, said that most of the points of dispute fell to the province of the discretion of the jury; they were questions of fact and not of law. Too much was made of the forensic differences of medical men; wherever expert opinions and "facts inferred" were given in court a very wide divergence was inevitable. The English law had shrunk from technicalities and was the freest system in the world. The next meeting of the society will be on Jan. 15th, when Dr. T. Claye Shaw will open a discussion on Suicide and Sanity.

LITERARY INTELLIGENCE.—Dr. Oscar Jennings, of the Bibliographical Society, has for many years made a special study of decorative and pictorial initial letters and has caused facsimiles to be made of many hundreds of them. These will shortly be published by Mr. Methuen with an introductory essay by Dr. Jennings.

DONATIONS AND BEQUESTS.—Under the will of Mr. Hugh Parnell, barrister-at-law, £1000 are bequeathed to King's College Hospital, £500 to the London Hospital, and £500 to the Ramsgate General Hospital.—By the will of Mr. Samuel William Fryett the Royal National Orthopædic Hospital, Great Portland-street, will receive £500, and the Cancer Hospital, Fulham-road, S.W., £500.—Miss H. Stephens has bequeathed £200 to the Bristol Eye Hospital.—Mrs. Merton, of Hans-mansions, S.W., has contributed £1000 to the Hospital for Sick Children, Great Ormond-street, and £250 to the North-Eastern Hospital for Children, Hackney-road.—The North-Eastern Hospital for Children has also received a donation of £100 from "A. B." towards the sum of £3300 required to meet expenses for the year.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.—Professor T. Clifford Allbutt occupied the chair on Dec. 12th at the eighth annual dinner of the Polyclinic, London, held at the Trocadéro Restaurant, Piccadilly-circus. The toast of "The Polyclinic" was proposed by the chairman who observed that in a brief space of time the Polyclinic had won for itself a very high position amongst the educational institutions in this country. He pointed out how the "illumination of practice" rendered it impossible to give instruction to qualified medical men and medical students at one and the same time. He praised the scientific method followed at the Polyclinic of acquiring knowledge and arranging it in a methodical manner by means of informal lectures. The medical superintendent of the Polyclinic, Captain A. E. Hayward Pinch (I.M.S., retired), in acknowledging the toast, said that no medical man should be deterred from joining the Polyclinic on the ground of expense because the annual subscription was only one guinea, and that worked out at about 4*d*. a week. Mr. James Cantlie proposed "The Guests," which was responded to by Mr. Henry Morris and by Sir A. H. Keogh. Dr. C. Theodore Williams then proposed the toast of "The Chairman," and Professor Allbutt having suitably replied the proceedings terminated.

LEBANON HOSPITAL FOR THE INSANE.—The annual general meeting of the friends and supporters of this institution was held at the residence of Mr. Jonathan Hutchinson, 15, Cavendish-square, London, W., on Dec. 11th, the Right Hon. Lord Overtoun presiding. The Lebanon Hospital for the Insane was founded by Mr. Theophilus Waldmeier in 1896. The committee in its eighth annual report, which has recently been issued, records much progress. The hospital was first opened in 1900, since which time 434 patients have been treated, out of which number 113 have been restored to health and 100 others have been greatly improved. To have saved so many sufferers from the tortures that they would probably have undergone in the so-called "Holy Caves" or in their own homes is no mean record and it clearly demonstrates what excellent work is being done. Mr. H. Thwaites, the medical superintendent, reports that during the year ending March 31st, 1906, 94 cases were admitted (59 males and 35 females). From the preceding year there remained in the hospital 63 patients (38 males and 25 females), thus making a total of 157 persons under care during the year; of these 25 men and nine women recovered, 21 men and seven women were relieved, 14 men and ten women were discharged uncured, and two men and four women died. Patients were drawn from various parts of Syria, Palestine, Armenia, Arabia, and Egypt. The recovery-rate, which is 36 per cent. upon the total admission, is low, but this apparently is largely accounted for by the severity of the forms of disease from which those admitted are suffering. Mr. Thwaites reports that there had been entire freedom from infectious and epidemic diseases during the year. The hospital is supported by voluntary contributions, the total sum

required annually being about £2500. The amount paid by friends of patients during the past year was over £1000, but it must be borne in mind that the majority of persons treated are too poor to pay anything. This institution is one which must appeal to all classes of the charitable public. It is doing a great work and deserves liberal support. We note that contributions will be gratefully received by the secretary, Dr. Francis C. Brading, at 35, Queen Victoria-street, London, E.C.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Withdrawal of the Food Regulation Bill.

AT a late hour on Tuesday night the Government withdrew the Public Health (Regulation as to Food) Bill. The announcement was not unexpected in view of the short time left for winding up the session, but those immediately interested in the subject express some regret. Doubtless the proposals will be brought before Parliament again in February.

HOUSE OF COMMONS.

THURSDAY, DEC. 13TH.

Vaccination in India.

Mr. LUPTON asked the Secretary of State for India whether any system of registration of small-pox cases existed in India and any system of registration of vaccination from which it could be readily ascertained by investigators whether persons suffering from small-pox had been vaccinated or not.—Mr. ELLIS, who answered, said: There is a system of registration of vaccinations performed throughout India. There is no such general system in respect of cases of small-pox, but there is a legal obligation to report cases occurring in most of the larger towns.

Chicken-pox Mistaken for Small-pox.

Mr. LUPTON asked the President of the Local Government Board whether he had cognisance of the suggestion of the Registrar-General in his annual report that medical men were in the habit of ascribing some deaths to chicken-pox which were really cases of small-pox, and whether he had taken any steps to prevent the continuance of this practice.—Mr. JOHN BURNS answered: I presume that my honourable friend refers to the opinion expressed by the Superintendent of Statistics in the letter from him to the Registrar-General, which is printed in the latter's last report, to the effect that it is at least probable that most of the deaths in 1904 said to have been from chicken-pox were unrecognised cases of small-pox. It falls within the province of the Registrar-General to direct public attention in his annual reports to such a point as that referred to as affecting the accuracy of vital statistics, but neither he nor I have any authority to take further action in the matter.

FRIDAY, DEC. 14TH.

Vaccination Legislation.

Mr. HASTINGS DUNCAN asked the Secretary of State for the Home Department whether he had in contemplation legislation in regard to compulsory vaccination which would prevent parents who had gone to the trouble and expense of making application to the magistrates for exemption for their children, on the ground of conscientious objection, being subsequently summoned and fined for adhering to their opposition.—Mr. JOHN BURNS replied: My right honourable friend has asked me to reply to this. I am giving consideration to the question whether some alteration should be made in the law as to the procedure to be followed by conscientious objectors to enable them to obtain exemption from penalties under the Vaccination Acts.

MONDAY, DEC. 17TH.

Fees of Certifying Surgeons.

Mr. JACKSON asked the Secretary of State for the Home Department whether, in view of the extension of the regulations regarding examinations for certificates of fitness to certain workshops, involving a probable increase in the number of these examinations made by the certifying surgeon at his residence or rooms, it was his intention to retain the 6*d.* fee as a fair standard rate of payment for this class of skilled professional work, or would he be favourably disposed to consider the advisability of making some revision in the scale at present in operation; and whether he would be prepared to institute an inquiry among certifying surgeons as to the extent to which children and young persons were sent for examination to the certifying surgeon's residence by large employers of adult labour, who thus took advantage of a concession that was originally intended to be given only to small employers.—Mr. GLADSTONE replied that he had nothing to add, in answer to the first part of the question, to a previous answer he had given on the subject. As regarded the second part, he would make some inquiries of the nature suggested.

Poplar Guardians and Outdoor Medical Officers.

Mr. KENDAL O'BRIEN asked the President of the Local Government Board whether he was aware of the recommendation of the Poplar guardians, dated October last, as to the increase of the salaries of their outdoor medical officers; whether this recommendation had been replied to; and, seeing that in one instance at least the work of the medical officer had been trebled during the last seven years, and that this officer was receiving at present less salary than what was then paid, whether he proposed to take any action in the matter.—Mr. JOHN BURNS replied: The Local Government Board has before it the proposal referred to and a communication on the subject will be sent to the guardians in the course of a few days.

Small-pox Hospital in Hertfordshire.

Mr. CARLILE asked the President of the Local Government Board upon what grounds it was proposed to allow authorities in the county of Middlesex to place persons suffering from small-pox in the county of Hertford and to erect a hospital in the latter county for their reception and treatment.—Mr. JOHN BURNS replied: I presume that the case referred to is that of the Clare Hall Hospital. If so, I may point out that the hospital already exists and that cases from Middlesex have for some years past been received in it. Indeed, I understand that the hospital buildings are actually in Middlesex, although part of the grounds are in Hertfordshire. There did not appear to me to be any sufficient reason for withholding sanction to the loan required for the purchase.

BOOKS, ETC., RECEIVED.

MACMILLAN AND CO., LIMITED, London.

A System of Medicine. By Many Writers. Edited by Thomas Clifford Allbutt, M.A., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge, Fellow of Gonville and Caius College; and Humphry Davy Rolleston, M.A., M.D., F.R.C.P., Physician to St. George's Hospital, and to the Victoria Hospital for Children, Sometime Fellow of St. John's College, Cambridge. Volume II. Part I. Price 25*s.* net.

MACMILLAN AND CO., LIMITED, London. (THE MACMILLAN COMPANY, New York.)

Studies in the Bacteriology and Etiology of Oriental Plague. By E. Klein, M.D., F.R.S., Lecturer on Advanced Bacteriology at the Medical School of St. Bartholomew's Hospital, London. Price 12*s.* net.

METHUEN AND CO., 36, Essex-street, Strand, London, W.C.

The Health of the School Child. By W. Leslie Mackenzie, M.A., M.D., D.P.H., M.R.C.P. Ed., F.R.S.E., Medical Member of the Local Government Board for Scotland. Price 2*s.* 6*d.*

REBMAN, LIMITED, 129, Shaftesbury-avenue, London, W.C.

Retinoscopy (or Shadow Test) in the Determination of Refraction at one Metre Distance, with the Plane Mirror. By James Thorington, A.M., M.D., author of "Refraction and How to Refract," "The Ophthalmoscope and How to Use It"; Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine; Ophthalmologist to the Elwyn and Vineland Training Schools for Feeble-minded Children. Fifth edition, revised and enlarged. Price 4*s.* 6*d.* net.

RICHARDS, E. GRANT, 7, Carlton-street, London, S.W.

The Birds of the British Islands. By Charles Stonham, C.M.G., F.R.C.S., F.Z.S. With Illustrations by L. M. Mediand. In 20 Parts. Part III. Price 7*s.* 6*d.* net.

THIEME, GEORG, Leipzig.

Therapeutische Technik für die ärztliche Praxis. Ein Handbuch für Aerzte und Studierende. Herausgegeben von Prof. Dr. Julius Schwalbe. Erster Halbband. Price M. 8.80.

UNIVERSITY PRESS, Manchester. (SHERRATT AND HUGHES, 60, Chandos-street, London, W.C.; and Manchester.)

Catalogue of the Pathological Museum of the University of Manchester. By J. Lorrain Smith, M.A., M.Sc., M.D., Professor of Pathology. Price 7*s.* 6*d.* net.

UNWIN, T. FISHER, 1, Adelphi-terrace, London, W.C.

How to Keep Well: Practical Home Hints on Common Ailments. By C. Stanford Read, M.B. Lond., M.R.C.S., L.R.C.P., London County Council Lecturer. Price 2*s.* 6*d.* net.

WALKER, JOHN AND CO., LIMITED, Farringdon House, Warwick-lane, London, E.C.

Walker's Diaries for 1907. No. 4/194, Russia, renewable. Price 10*s.* 6*d.* No. 7.77, American Russia. Price 3*s.* No. 24, long grain. Price 2*s.* 6*d.* No. 17,417, solid bazil. Price 1*s.* 6*d.* No. 15/425, solid pigskin. Price 1*s.* 6*d.* No. 3/53, cloth, limp. Price 9*d.* No. 2.62, long grain. Price 1*s.* 6*d.* No. 1/111, solid bazil. Price 1*s.* No. 611, quarterly pocket, long grain. Price 1*s.* No. 4/64, long grain. Price 2*s.* 6*d.* "Tablet" Diary, No. 1, Art vellum. Price 1*s.*

WHITAKER, J., AND SONS, LIMITED, 12, Warwick-lane, Paternoster row, London, E.C.

An Almanack for the Year of our Lord, 1907. By Joseph Whitaker, F.S.A. (Whitaker's Almanack). Price 2*s.* 6*d.* net.

Whitaker's Peerage, Baronetage, Knightage, and Companionage for the Year 1907. Price 2*s.* 6*d.* net.

WILEY, JOHN, AND SONS, New York. (CHAPMAN AND HALL, LIMITED, London.)

Outlines of Human Embryology. A Medical Student's Handbook

of Embryology. By George Reese Satterlee, M.A., M.D., Instructor in Histology and Embryology in the University and Bellevue Hospital Medical College, New York. First edition. Price 5s. 6d. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

BEAMAN, E. H., L.R.C.P. & S. Irel., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Normanton District of the county of York.

CUNNINGHAM, RICHARD G., M.B., Ch.B. Edin., has been appointed House Physician and Pathologist at Sunderland Infirmary.

CURRIE, JAMES, M.B., M.S. Edin., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Springhead District of the county of York.

ECKENSTEIN, K. E., M.R.C.S., L.R.C.P., has been appointed Clinical Assistant to the Chelsea Hospital for Women.

FINLAY, DOUGLAS EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for the City of Gloucester.

HOPEWELL-SMITH, A., L.R.C.P. Lond., M.R.C.S., L.D.S. Eng., has been appointed the External Examiner in Dental Subjects for the Third and Final Examinations for the Degrees in Dental Surgery of the University of Birmingham.

HUTCHINSON, J. R., M.B., Ch.B. Vict., D.P.H. Vict., has been appointed Assistant Medical Officer of Health of the County Borough of Blackburn.

TROTTER, WILFRED B. L., M.D. Lond., F.R.C.S. Eng., has been appointed Assistant Surgeon to University College Hospital.

WILLCOX, W. H., M.D. Lond., has been appointed Physician to the Great Northern Central Hospital, Holloway-road, N.

WOOD, T. OUTTERSON, M.D., F.R.C.P., F.R.C.S. Edin., M.R.C.P. Lond., has been appointed Consulting Physician to the West-End Hospital for Nervous Diseases, Welbeck-street, Cavendish-square, W.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH, ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary £100, with lodging, board, and laundry.

BOURNEMOUTH, ROYAL NATIONAL SANATORIUM.—Resident Medical Officer. Salary £10 per month, with rooms, board, and washing.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House Surgeon. Salary £50 per annum, with board, rooms, and attendance.

BRISTOL ROYAL INFIRMARY.—Surgical Registrar.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer, unmarried. Salary £80 per annum. Also Clinical Assistant.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Salary at rate of £50 per annum, with board, residence, and washing.

DERBYSHIRE ROYAL INFIRMARY.—Two House Surgeons, a House Physician, and an Assistant House Surgeon. Salary of three former £100 per annum, and of latter £80 per annum, with apartments, board, &c.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.—Assistant House Surgeon. Salary £25 per annum, with board and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician, for six months. Salary £25, with board, residence, laundry, &c.

EDINBURGH SCHOOL BOARD.—Medical Officer. Salary £400.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Casualty Officer. Salary £100 per annum.

GRESHAM LECTURESHIP ON PHYSIC.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Physician.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon, unmarried, for six months. Salary £30, with board and residence.

INDIAN MEDICAL SERVICE, India Office, London.—Examination for not less than 18 Commissions.

MANCHESTER ROYAL INFIRMARY.—Director of the Clinical Laboratory. Salary £100 per annum.

MARGATE, ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon. Salary at rate of £80 per annum, with board and residence.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton-street, Fitzroy-square, W.—Two Clinical Assistants and Two Anæsthetists.

MIDHURST, SUSSEX, KING EDWARD VII. SANATORIUM.—Two House Physicians, unmarried. Salary 50 guineas per annum, with board, lodging, and attendance. Also Pathologist, unmarried. Salary £250 per annum, with board, lodging, and attendance.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, W.C.—Senior House Physician. Salary £50 per annum, with board and residence.

NEWPORT (MON.) BOROUGH ASYLUM, Caerleon.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and attendance.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, E.—House Surgeon, also House Physician, for six months. Salary in each case at rate of £60 per annum, with board, residence, and laundry.

NORWICH, JENNY LIND INFIRMARY FOR CHILDREN, Unthank-road.—Resident Medical Officer (female). Salary £50 per annum, with board, residence, and laundry.

NORWICH, NORFOLK AND NORWICH HOSPITAL.—Assistant House Surgeons, for six months. Honorarium £20, with board, lodging, and washing.

PADDINGTON INFIRMARY AND WORKHOUSE.—Assistant Medical Superintendent and Assistant Medical Officer. Salary £120 per annum, rising to £150, with board, lodging, and washing.

PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Surgeon. Salary £100, with board, residence, and washing.

ROYAL EYE HOSPITAL, Southwark, S.E.—Honorary Assistant Surgeon.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Honorary Physician.

SALFORD, FEVER HOSPITAL.—Assistant Medical Officer. Salary £150 per annum, with apartments and board.

SALISBURY INFIRMARY.—Assistant House Surgeon, unmarried. Salary £50 per annum, with apartments, board, and lodging.

SEAMEN'S HOSPITAL SOCIETY, Dreadnought Hospital, Greenwich.—Dental Surgeon. Also Medical Officer in charge of the Electrical Department.

SHEFFIELD, JESSOP HOSPITAL FOR WOMEN.—Honorary Assistant Medical Officer.

SHEFFIELD ROYAL HOSPITAL.—Fourth, Fifth, and Sixth Resident Medical Officers. Salary of former £60 per annum and of two latter £50 each per annum, with board, lodging, and washing.

SHEFFIELD, UNIVERSITY OF SHEFFIELD.—Chair of Pathology.

STOKE-ON-TRENT, NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill.—Junior House Surgeon. Salary £50 per annum, with board, apartments, and washing.

THORPE, NORWICH, NORFOLK COUNTY ASYLUM.—Junior Assistant Medical Officer, unmarried. Salary £150 per annum and all found.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, 73, Welbeck-street, London, W.—Physician. Also Medical Officer in Charge of the Electrical Department.

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon for six months. Salary at rate of £75 per annum, with board, residence, &c.

YORKSHIRE, COUNTY COUNCILS OF THE EAST AND WEST RIDINGS.—Bacteriologist to carry out investigation of Milk-supply. Remuneration £250 and out-of-pocket expenses.

Births, Marriages, and Deaths.

BIRTHS.

KELLY.—On Dec. 14th, at Blythswood-square, Glasgow, the wife of A. Brown Kelly, M.D., of a son.

LLOYD.—On Dec. 14th, at Victoria-place, Haverfordwest, the wife of Perceval A. Lloyd, F.R.C.S. Eng., of a daughter.

WALTER.—On Nov. 15th, at Dehra Dun, India, the wife of Captain A. E. Walter, I.M.S., of a daughter.

MARRIAGE.

GRAHAM—BYGOTT.—On Dec. 12th, at Christ Church, Beckenham Major Walter ap Samuel James Graham, R.A.M.C., to Beatrice Maud Ethel, daughter of the late J. Bygott of Bracebridge, Lincolnshire.

DEATHS.

JAMES.—On Dec. 14th, at Saint Bee's, Cumberland, David James, M.D., F.R.C.S. Edin., aged 68 years.

MACGREGOR.—At Wellington, New Zealand, on Dec. 16th, Duncan MacGregor, M.B., LL.D., Inspector-General of Hospitals and Asylums for the Colony of New Zealand, aged 63. (By cable.)

SHEEN.—On Dec. 16th, at Halswell House, Cardiff, Alfred Sheen, M.D., M.R.C.S., D.P.H., Consulting Surgeon, Cardiff Infirmary; Visiting Medical Officer, Cardiff Workhouse Hospital.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

During the week marked copies of the following newspapers have been received: *South China Morning Post, Daily Trade Record (N.Y.), Westminster Gazette, Freeman's Journal, Norwich News, Newcastle Weekly Leader, Liverpool Post, Manchester Guardian, Staffordshire Sentinel, Dublin Telegraph, Pall Mall Gazette, Bath Weekly Argus, Manchester Dispatch, Brighton Evening Argus, Manchester Weekly Times, Kettering Guardian, Glasgow Herald, &c.*

Notes, Short Comments, and Answers to Correspondents.

MEDICAL EVIDENCE IN POLICE COURTS.

AT the North London police court on Dec. 16th a medical man was called to give evidence during the hearing of a case of alleged attempted suicide. Mr. Fordham said that he had noticed the witness in court all the morning and but for his being unaware of the fact that he was a medical man he would have had the case called on early so that he might go away. Mr. Fordham further remarked that he considered that medical men should not be kept from their practices longer than was necessary, and that on previous occasions he had given directions that medical men in remand cases should not be asked to attend before 11.30 A.M. He concluded by saying that he would write to the Commissioner of Police, requesting him to issue an order that medical men should not be called upon to give evidence in his district, at any rate, before 11.30 A.M. We are sure that all our readers will join with us in expressing thanks to Mr. Fordham for the blend of commonsense and courtesy which he exhibited. There is perhaps no class which is expected by the State to do so much for so little as are members of the medical profession, and we are very glad to see that one magistrate at least is willing to make their work as little arduous as possible.

"HIS OPPONENT."

To the Editors of THE LANCET.

SIRS,—With reference to your remarks under this heading in your issue of Dec. 8th I am sorry you did not take up a stronger position on the desirability of newly established practitioners paying the courtesy visit to their professional neighbours. I have carefully adhered to the practice on each of the three occasions of change of residence and always with the happiest results, in that I found that I could always rely upon the moral support and friendly services of my *confrères* in after circumstances.

I have myself been conscious of a feeling of latent jealousy and distrust in respect of new men setting up in my immediate neighbourhood and I have felt this melt away forthwith on the two rare occasions on which they have made their call.

I am convinced that much of the friction that arises between neighbouring practitioners would not be called into existence if this simple act of courtesy were adhered to and I trust your powerful influence will be exerted to impress this upon our younger brethren who are starting in practice. It cannot possibly be misconstrued and it will, in the majority of instances, greatly conduce to their future happiness. I am, Sirs, yours faithfully,

Savage Club, W.C. A. S. G.

PENNY COUGH MIXTURE.

AT an inquest held recently by Mr. Troutbeck, sitting at the Battersea coroner's court, the evidence of Dr. L. Freyberger showed, as the result of post-mortem examination, that the subject of the inquiry, the 18 months old son of a labourer, had died from broncho-pneumonia without medical aid being procured for him. The coroner questioned the mother closely as to the child's symptoms and as to what efforts she had made on his behalf, eliciting from her that all that she had done had been to purchase a penny bottle of "cough mixture" at a grocer's shop and to administer some of it. The child had coughed and in her opinion the compound, which she described as a "brown cough mixture," adding that the inscription on the bottle defined it as a "lung tonic," "relieved the cough." Mr. Troutbeck was at some pains to explain to the mother that a cough is a symptom of various disorders which may be of a serious description, that the advertisement affixed to bottles containing nostrums, such as are likely to be sold for a penny by grocers, are invariably lying documents, promising cures which they cannot bring about, and he dwelt also at some length upon the countenance given to the sale of such messes by the Exchequer. The Government stamp is, no doubt, in the eyes of many ignorant people, an intimation of official sanction and approval, and indeed some vendors have the effrontery to suggest in their advertisements that it is so. One of Mr. Troutbeck's suggestions was to the effect that mothers might be warned by medical men of the danger of trusting to quack medicines, and it is just possible that as our system of education develops and improves the practical education of mothers in their maternal duties may become general and may have practical results of advantage to the community at large.

A MODIFIED ARTERY FORCEPS.

To the Editors of THE LANCET.

SIRS,—We noticed in last week's issue of your journal a description of a modified artery forcep suggested by Captain Carol. Possibly Captain Carol is not aware that this identical forceps was invented a few years ago by Dr. Shoemaker and patented both here and abroad.

We remain, yours faithfully,

Dec. 13th, 1906. ARNOLD & SONS.

APPENDICITIS AND ENAMELLED COOKING VESSELS.

Sir James Sawyer has adopted the idea more than once referred to in our columns that there is a direct association between enamelled cooking vessels and the increase of appendicitis. He claims that fragments of the enamel are broken off from the vessels by spoons used for stirring and that the sharp-edged fragments are at least one of the causes of inflammation of the vermiform appendix. If this is the case appendicitis is likely to continue increasing, for the advantages of enamelled vessels are so great that they are growing more and more into popular favour. If the hypothesis could be proved, or even fairly established on a definite basis, there would be reason for a crusade against the use of enamelled articles for cooking purposes, which might result in the improvement of the enamelling or the disuse of the articles, but until facts are forthcoming such a crusade seems hopeless.

MEDICAL ASSISTANT WORK IN AUSTRALIA.

To the Editors of THE LANCET.

SIRS,—I wish to visit Sydney, N.S.W., partly on business, and it will be necessary for me to earn some money there as a locum tenens or as an assistant. I shall therefore be glad if any one of your readers will tell me if it is reasonably easy to procure locum or assistantship work and give me the names and addresses of any reliable medical agents in Sydney (or Melbourne). Any other useful information will also be gratefully received. I am, Sirs, yours faithfully,

Dec. 7th, 1906. M.B., Ch.B.

DR. WALTER BAILY.

To the Editors of THE LANCET.

SIRS,—I shall feel greatly obliged if any of your readers who may have a copy of one of the three works mentioned below will say to whom it was given by the author. The inscription will be found in each case immediately above the preface and the autograph at the end of the preface. I should also like to know whether the printer's signature at the foot of the first page of the preface is A2 or Aiii. 1. A briefe Treatise concerning the preservation of the Eiesight, &c.; 1586. 2. A briefe discourse on certain bathes of medicinal waters in the county of Warwick nere unto a village called Newnham Regis; 1587. 3. A discourse of the three kinds of Peppers; 1588.

I am, Sirs, yours faithfully,

Chandos-street, W., Dec. 13th, 1906. D'ARCY POWER.

THE WILL OF SIR THOMAS BROWNE.

To the Editors of THE LANCET.

SIRS,—I have not been able to peruse the paper of Mr. Charles Williams (referred to in THE LANCET, Dec. 15th, p. 1676) on the Will of Sir Thomas Browne, but in case he has omitted to note the fact it is worthy of record that it contains an instruction concerning the disposal of "My Body ..... on signs of Putrefaction," which indicates that the testator held the same views as to the absolute signs of death which we hold to-day. I am, Sirs, yours faithfully,

Dec. 15th, 1906. S. B. A.

**** The instruction mentioned by our correspondent does not appear to be noticed by Mr. Williams. The clause does not appear in the will as quoted by him, but possibly "S. B. A." is mistaken in saying that the will contained the clause. It may only have been an instruction to his executors.—ED. L.

THE AFTER-CARE ASSOCIATION.

OUR readers are well aware of the excellent and beneficent work performed by the After-Care Association which assists poor persons discharged as recovered from asylums for the insane. This is the only charity of the kind in the United Kingdom and cases are assisted from all parts of the country. From the offices of the association, Church House, Dean's-yard, Westminster, S.W., we have received an appeal for help to carry on and to extend the efforts of the council. Last year 288 cases were dealt with. We thoroughly endorse the appeal and hope that the association will receive the help which it so urgently needs.

SWEDISH EXERCISES.

To the Editors of THE LANCET.

SIRS,—Could any of your readers kindly recommend me a small book on Swedish exercises that could be read and understood by a lady patient? I am, Sirs, yours faithfully,

Dec. 5th, 1906. P.

MEDICAL OFFICERS OF HEALTH AND PRIVATE PRACTICE.

To the Editors of THE LANCET.

SIRS,—Can you refer me to any issue of THE LANCET in which the disadvantages or otherwise of medical officers of health in the large towns or boroughs being allowed to practise their profession in opposition to the rank and file of the profession is set out or argued.

I am, Sirs, yours faithfully,

X. Y. Z.

**** We have always held that it is better that medical officers of health should not be in private practice, at any rate in large towns. Our correspondent will find one article on the matter in THE LANCET of Nov. 19th, 1898, p. 1350.—ED. L.

DISINFECTION OF RAILWAY CARRIAGES.

To the Editors of THE LANCET.

SIRS,—In your issue of to-day you gave a very interesting note on the Disinfection of Railway Carriages, and in it you refer to Bulletin No. 27, U.S. Public Health and Marine Hospital Service, Washington, 1906. Could you kindly inform me where this bulletin can be obtained? Might I suggest that when such authorities are quoted it would be of great convenience to your readers if you always stated where the authorities could be obtained and, if possible, the price. You must pardon my troubling you.

I am, Sirs, yours faithfully,

ANTONY ROCHE,
Professor Public Health, C.U.

Dublin, Dec. 15th, 1906.

*.** The bulletins are not for sale but are sent gratis by the Surgeon-General, U.S. Public Health and Marine Hospital Service, Washington, to those who can show good reason for asking for copies. We advise our correspondent to write to the Surgeon-General, stating the purpose for which the bulletin is required.—ED. L.

Formalin.—The diploma recognised by the Local Government Board is that of the Fellowship of the Institute of Chemistry of Great Britain and Ireland. Further information, we are sure, will be given to our correspondent if he writes to the Registrar of the Institute, 30, Bloomsbury-square, London, W.C.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 20th, 1906.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. in Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Dec. 14	29·602	N.E.	0·21	48	40	35	36	38	Cloudy
,, 15	30·004	W.	...	44	44	35	35	37	Foggy
,, 16	30·170	S.W.	...	47	47	37	40	41	Raining
,, 17	30·354	S.W.	0·54	51	50	41	47	47	Foggy
,, 18	30·370	S.W.	...	55	52	46	46	47	Foggy
,, 19	30·494	S.E.	...	45	45	43	43	43	Overcast
,, 20	30·592	N.E.	...	38	38	35	36	37	Overcast

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond street (3 P.M.).

TUESDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (2 P.M., Ophthalmic, 2.15 P.M.).

WEDNESDAY (26th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9.30 A.M., Dental, 2 P.M.).

THURSDAY (27th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (2.30 P.M.).

FRIDAY (28th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), St. Mark's (2.30 P.M.).

SATURDAY (29th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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T.—*Therapeutic Gazette*, Detroit, Publisher of.

U.—University College, Lond., Provost of.

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Letters, each with enclosure, are also acknowledged from—

A.—Messrs. Aked and Aked, Lond.; A. J. G.; A. H.

B.—Dr. P. Blaikie-Smith, San Remo; Messrs. P. Blakiston's Son and Co., Philadelphia, U.S.A.; Mr. A. G. Bishop, Wylam-on-Tyne; Miss C. M. Brown, Rome; Bradford Corporation, City Treasurer of.

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